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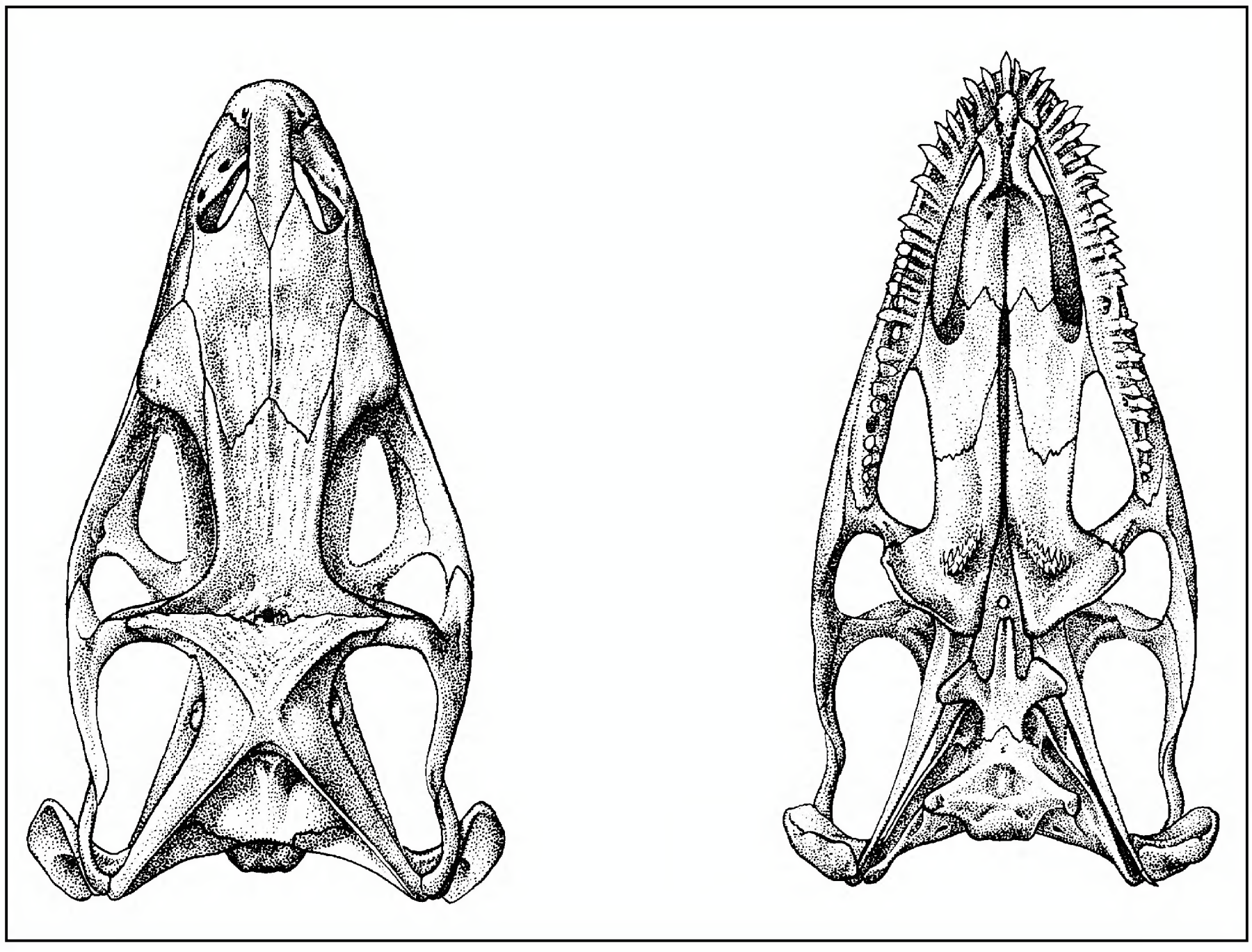

BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY
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The Herpetofauna of Terrebonne Parish, Louisiana

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Terrebonne Parish, Louisiana, comprises 1008 square miles of land and 1092 square miles of water. In land area, it is the second largest of the 64 parishes in the state. The elevation of the parish ranges from 0 to 12 feet above sea level; Houma, the main city and parish seat, lies 9 to 12 feet above sea level. Terrebonne is bounded by Lafourche Parish to the east and north, Assumption Parish to the north-northwest, St. Mary Parish to the west, and by the Gulf of Mexico to the south (Figure 1).

Natural divisions of the parish consist of coastal sand and shell ridge, coastal marsh and delta, Gulf-level swamp, freshwater marsh and lakes, and alluvial ridge with forests of live oak, cypress–tupulo, willow and hardwoods. With such a varied topography it is not surprising that a large variety of herpetofauna is present. The topography of the parish has been altered from its original state by the activities of humans, causing shifts in the habitats and populations of some taxa. Land has been cleared for agriculture and pastures. The Atchafalaya and Mississippi Rivers have been channelized. An intracoastal waterway was dredged through the northern part of the parish and a ship channel was built from the Gulf to Houma, which allowed salt water to intrude into freshwater areas. Shell reefs were dredged, allowing Gulf water to wash out some coastal areas. Channels were built throughout the marshes and air boats and marsh buggies have torn up large areas of the marshes. Many of these activities have contributed to the loss of large areas of the parish (and state) to erosion. Efforts are now underway to off-set some of the destructive activities of humans. In addition to the physical alterations of the land, pollution affects the populations of various taxa. Pesticides and other pollutants play an important role in the size and distribution of populations. Other changes are due to natural causes and are out of the control of humans.

Liner (1954) reported on what was known of the herpetofauna in the parish at that time. Dundee and Rossman (1989) in their book on the herpetofauna of the state were able to add additional forms. Liner (1996a, b) added two taxa. In the Gulf of Mexico are three sea turtle species that are known to frequent the Gulf, but are not included in this list as no known specimens have been found in the parish or its waters. The three species are *Caretta caretta caretta* (Atlantic loggerhead), *Chelonia mydas mydas* (Atlantic green turtle) and *Eretmochelys imbricata imbricata* (Atlantic hawksbill). Both *Hyla versicolor* and *H. chrysoscelis* are listed because these species are sympatric in parts of their range and the actual identities of the gray treefrogs in the parish are uncertain. Excluding the three possible sea turtles there are 61 taxa in the parish: 6 salamanders, 13 anurans, 1 crocodilian, 14 turtles, 6 lizards, and 21 snakes. While many of these taxa are common, others have been found only once or very infrequently and should be considered rare in the parish. Exotic species occasionally turn up, but are not listed here, with the exception of the Mediter-

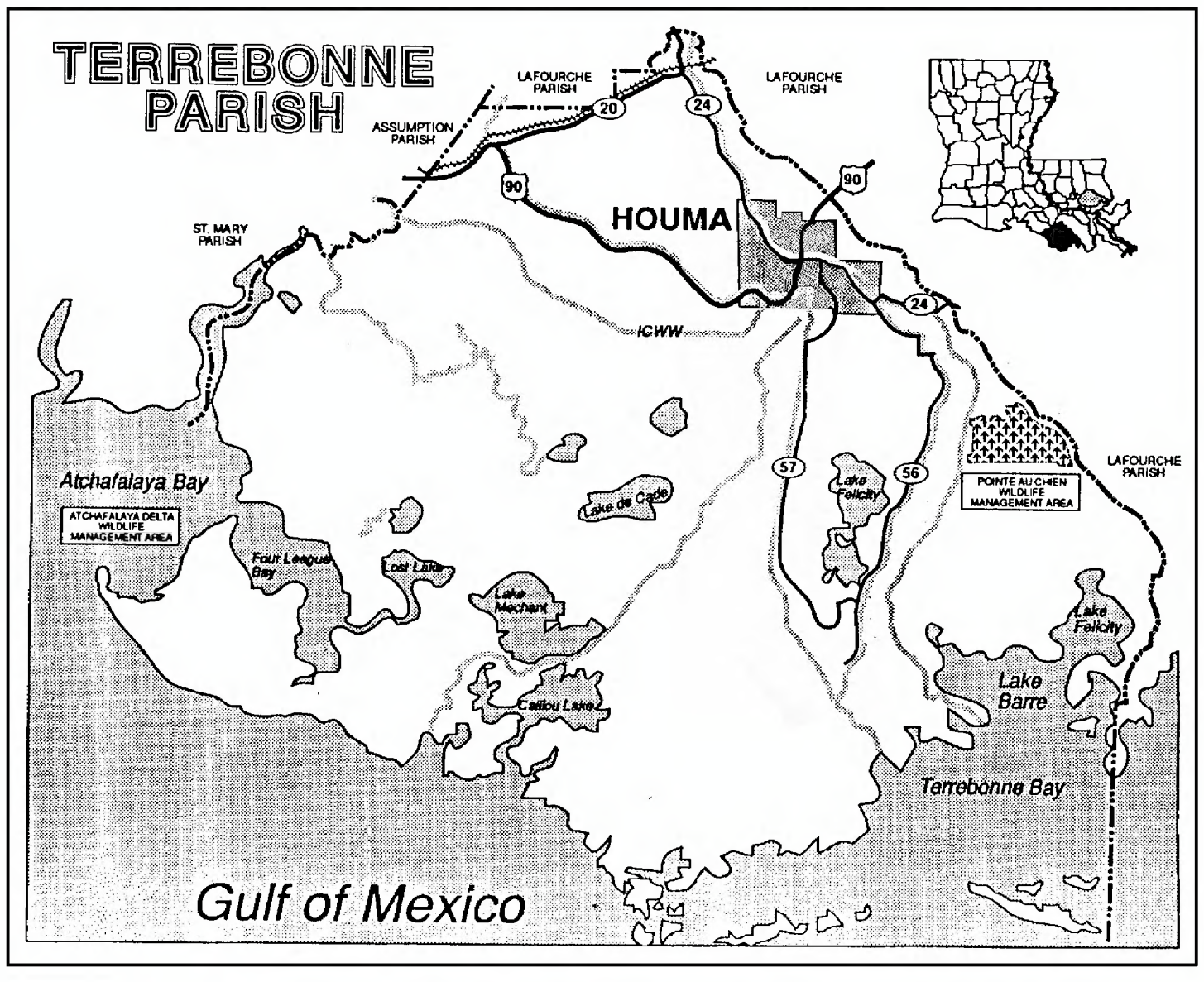

Figure 1. Map of the physical area of Terrebonne Parish. Inset shows the location of the parish in the state. Taken from *Louisiana, Terrebonne Parish in Profile* by Entergy Corporation.

ranean gecko, *Hemidactylus turcicus turcicus*, a known exotic introduction that has now become well established.

Some forms once common in their respective habitats have become rare. Kemp's ridley, *Lepidochelys kempi* is now on the endangered list and is considered the most endangered of all sea turtles. The alligator snapping turtle, *Macroclemys temminckii*, has been greatly reduced in the parish (and elsewhere in the state) due to exploitation for human consumption and is considered rare and possibly will soon be placed on the state endangered list. The Mississippi diamondback terrapin, *Malaclemys terrapin pileata*, used to be common in the coastal marshes but has become rare due to human exploitation for the gourmet table and also due to the proliferation of crab-traps, into which the terrapin enters and drowns because it cannot escape; (Bishop, 1983; Dixon, 1987; pers. com.) While other turtles are utilized for human consumption, they have not yet reached the point of becoming rare and endangered. They are the common snapping turtle, *Chelydra serpentina serpentina*, and the Gulf Coast spiny softshell, *Apalone spinifera asper*. *Pseudemys* and *Trachemys* are also utilized for food—to a much lesser extent here but large numbers are being exported overseas from the parish, state and elsewhere. Pressures are being felt on populations of turtles of the genera *Pseudemys*, *Trachemys* and *Terrapene*, as well as the lizards *Anolis* and *Hemidactylus* for the pet trade. The American alligator, *Alligator mississippiensis*, at one time was hunted to near extinction but strict federal and state laws have enabled the species to make a remarkable comeback and to be removed from the endangered category to protected; it is now common in appropriate habitats but still protected by law. Several alligator farms have been established in the parish. A one-month controlled hunt has been conducted for several years. The skins and meat are now being utilized extensively, and some parts, notably the head and teeth, are being turned into jewelry and curios. Frogs of the genus *Rana* are hunted extensively in the parish (and elsewhere) for human consumption and sport. The bullfrog, *Rana catesbeiana*, is the species most commonly hunted as a food item. To a lesser extent other species are used, when the size is considered large enough for the pot. Snakes are also collected for the pet trade and biological supply houses, but not to the same extent as the turtles and lizards.

Louisiana has seven taxa of poisonous snakes. Of this total Terrebonne Parish has four with one of them being rare. No coral snakes are found here but the Louisiana milk snake, *Lampropeltis triangulum amaura*, is often mistaken for one.

The known herpetofauna is listed below, with each taxon noted as either rare or common in the author's considered opinion, keeping in mind that certain taxa are only found in certain types of the parish's varied habitats. The rare or common allocation is arbitrary based on the known records available for the various taxa. In a few cases additional comments are added.

Class **Amphibia** (Frogs, Toads, Salamanders and Caecilians)

Order **Caudata** (Salamanders and Newts)

Family **Ambystomatidae** (Mole Salamanders)

Ambystoma texanum = Smallmouth Salamander (Rare)

Family **Amphiumidae** (Amphiumas)

Amphiuma tridactylus = Three-toed Amphiuma (Common)

Family **Plethodontidae** (Lungless Salamanders)

Desmognathus auriculatus = Southern Dusky Salamander (Rare)

Eurycea quadridigitata = Dwarf Salamander (Common)

Family **Salamandridae** (Newts and Fire Salamanders)

Notophthalmus viridescens louisianensis = Central Newt (Common)

Family **Sirenidae** (Sirens)

Siren intermedia nettingi = Western Lesser Siren (Rare)

Order **Anura** (Frogs and Toads)

Family **Bufonidae** (True Toads)

Bufo valliceps valliceps = Gulf Coast Toad (Common)

Bufo woodhousei fowleri = Fowler's Toad (Rare)

Family **Hylidae** (Treefrogs)

Acris crepitans = Northern Cricket Frog (Common)

Hyla versicolor = Gray Treefrog (Common)
The status of this species and *H. chrysoscelis* in the parish is uncertain. These two species occur sympatrically in parts of their range. Sometimes the species can be told apart by a collector with a well-tuned ear based on the call, but the most reliable method is by chromosome count, which must be done in a laboratory. *H. versicolor* is tetraploid, with 48 chromosomes, and *H. chrysoscelis* is diploid, with 24 chromosomes.

Hyla chrysoscelis = Cope's Gray Treefrog (Common)
See above comments.

Hyla squirella = Squirrel Treefrog (Common)

Pseudacris crucifer crucifer = Northern Spring Peeper (Common)

Pseudacris feriarum feriarum = Upland Chorus Frog (Rare)

Family **Microhylidae** (Narrow-mouthed Toads)

Gastrophryne carolinensis = Eastern Narrowmouth Toad (Common)

Family **Ranidae** (True Frogs)

Rana catesbeiana = Bullfrog (Common)

Rana clamitans clamitans = Bronze Frog (Common)

Rana grylio = Pig Frog (Common)

Rana sphenocephala = Florida Leopard Frog (Common)

Class **Reptilia** (Turtles, Lizards, Amphisbaenians, Snakes, Tuatara and Crocodilians)

Order **Crocodylia** (Alligators, Caimans and Crocodiles)

Family **Alligatoridae** (Alligators and Caimans)

Alligator mississippiensis = American Alligator (Common) See comments in introduction.

Order **Testudines** (Turtles)

Family **Cheloniidae** (Marine Turtles)

Lepidochelys kempi = Kemp's Ridley (Rare) See comments in introduction.

Family **Chelydridae** (Snapping Turtles)

Chelydra serpentina serpentina = Common Snapping Turtle (Common)

Macroclemys temminckii = Alligator Snappping Turtle (Rare) See comments in introduction.

Family **Dermochelyidae** (Leatherback Turtles)

Dermochelys coriacea = Leatherback (Rare)

Family **Emydidae** (Pond, River and Box Turtles)

Chrysemys picta dorsalis = Southern Painted Turtle (Rare)

Deirochelys reticularia miaria = Western Chicken Turtle (Rare) The inclusion of this taxon in the parish is questionable based on its general distribution in the state. The locality shown by Dundee and Rossman (1989) is at a location where a well-known dealer in baby turtles did business. Also a biological supply house exists in the same general locality. One of these could have been the source of an accidental release from captivity of this species.

Malaclemys terrapin pileata = Mississippi Diamondback Terrapin (Rare) See comments in introduction.

Pseudemys floridana hoyi = Missouri Cooter (Rare)

Terrapene carolina major = Gulf Coast Box Turtle (Common)

Trachemys scripta elegans = Red-eared Slider (Common)

Family **Kinosternidae** (Mud and Musk Turtles)

Kinosternon carinatum = Razorback Musk Turtle (Rare)

Kinosternon odoratum = Common Musk Turtle (Common)

Kinosternon subrubrum hippocrepis = Mississippi Mud Turtle (Common)

Family **Trionychidae** (Softshells)

Apalone spinifera asper = Gulf Coast Spiny Softshell (Common)

Order **Squamata** (Scaled Reptiles)

Suborder **Lacertilia** (Lizards)

Family **Anguidae** (Lateral Fold Lizards)

Ophisaurus ventralis = Eastern Glass Lizard (Rare)

Family **Gekkonidae** (Geckos and Legless Lizards)

Hemidactylus turcicus turcicus = Mediterranean Gecko (Common)

Family **Iguanidae** (Iguanas)

Anolis carolinensis carolinensis = Green Anole (Common)

Family **Scincidae** (Skinks)

Eumeces fasciatus = Five-lined Skink (Common)

Eumeces laticeps = Broadhead Skink (Rare)

Scincella laterale = Ground Skink (Common)

Suborder **Serpentes** (Snakes)

Family **Colubridae** (Advanced Snakes)

Coluber constrictor latrunculus = Blackmask Racer (Common)

Diadophis punctatus stictogenys = Mississippi Ringneck Snake (Rare)

Elaphe obsoleta lindheimeri = Texas Rat Snake (Common)

Farancia abacura reinwardti = Western Mud Snake (Common)

Lampropeltis getulus holbrooki = Speckled Kingsnake (Common)

Lampropeltis triangulum amaura = Louisiana Milk Snake (Rare)

Nerodia clarki clarki = Gulf Salt Marsh Snake (Common)

Nerodia cyclopion = Green Water Snake (Common)

Nerodia erythrogaster flavigaster = Yellowbelly Water Snake (Common)

Nerodia fasciata confluens = Broad-banded Water Snake (Common)

Nerodia rhombifer rhombifer = Diamondback Water Snake (Common)

Opheodrys aestivus = Rough Green Snake (Common)

Regina grahami = Graham's Crayfish Snake (Rare)

Regina rigida sinicola = Gulf Crayfish Snake (Common)

Storeria dekayi limnetes = Marsh Brown Snake (Common)

Thamnophis proximus orarius = Gulf Coast Ribbon Snake (Common)

Thamnophis sirtalis sirtalis = Eastern Garter Snake (Rare)

Family **Viperidae** (Vipers)

Agkistrodon contortrix contortrix = Southern Copperhead (Common)

Agkistrodon piscivorus leucostoma = Western Cottonmouth (Common)

Crotalus horridus atricaudatus = Canebrake Rattlesnake (Common)

Sistrurus miliarius streckeri = Western Pigmy Rattlesnake (Rare)

Thanks are extended to James R. Dixon and Victor H. Hutchison for reviewing the manuscript and for their helpful comments.

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————. 1996a. Geographic Distribution: *Siren intermedia nettingi* (Western Lesser Siren). Herpetol. Rev. 27:148.

————. 1996b. Geographic Distribution: *Eumeces laticeps* (Broadhead Skink). Herpetol. Rev. 27:152.

Bull. Chicago Herp. Soc. 32(8):172, 1997

Notes on the Captive Maintenance and Feeding of a Wild Caught Ball Python (*Python regius*)

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The Wildlife Education Outreach Program operated by the Lake Forest Recreation Department received an adult male imported ball python, *Python regius*, on 1 October 1996. This animal was donated after it steadfastly refused to feed for its previous owner. Internal and external parasites were present and proper protocols were implemented to eradicate these pests. After a short quarantine period the snake was set up in a 15-gallon Lizard Lounge tank. Furnishings included newspaper substrate, large water bowl, driftwood, a cork bark tube, a hide box, and a Valentine C-95 heat pad connected to a rheostat to provide proper thermal gradients. To reduce stress, this snake was not handled except for cage cleaning.

After a one-month "settling-in" period, food was offered every two weeks. Many types of food, and serving methods, were tried unsuccessfully (live and dead mice, different colors, gerbils, chicks, food offered in upturned pots, etc.). While force-feeding was considered, the snake appeared to be in good overall health and it was decided to wait out the snake's self-imposed fast. Nearly 10 months later another "trick" was used to try to entice the snake into eating. A frozen mouse was wrapped inside aluminum foil and placed on a heater until the mouse felt warm to the touch. The foil served to raise the internal temperature of the dead mouse, thus giving it a more "lively" smell and making it stand out more to the python's heat-sensitive labial pits. The mouse was then taken out of the foil and placed inside the snake's cage. Although it was assumed that the snake would "turn up his nose" to the mouse, much to the surprise of staff the snake eagerly devoured the warm, but dead rodent. This snake is now used in a variety of educational programs and regularly feeds using this method.

Ball pythons are wonderful animals that, unfortunately, often are put through undue stress with force-feeding. While force-feeding may be necessary to save emaciated or very thin animals, most ball pythons with good weight will feed eventually. The key is to be *patient* and exhaust as many feeding strategies as you can before you consider force-feeding. This particular snake actually went over 14 months before accepting its first meal, with no apparent ill effect. Providing the proper temperatures, hide areas and a large water bowl, treating for parasites, and allowing ample time to settle in are the keys to successful maintenance of the ball python. It is hoped that this note will encourage other owners of ball pythons, particularly imported specimens, to persevere in their efforts to provide the proper care for these beautiful animals.

Suggested Reading

de Vosjoli, P. 1990. The general care and maintenance of ball pythons. The Herpetocultural Library. Advanced Vivarium Systems.

Wareham, D. 1993. The captive husbandry of the royal python. Reptilian. 3(10):11-18.

Bull. Chicago Herp. Soc. 32(8):173, 1997

Seasonal Dorsal Coloration Variation in the Lizard *Sceloporus undulatus speari* Not Confirmed

Julio A. Lemos-Espinal[1], David Chiszar[2] and Hobart M. Smith[3]

When *Sceloporus undulatus speari* was described (Smith et al., 1995), it was conjectured that a marked seasonal variation in dorsal coloration occurs in that subspecies. The basis for that proposal was the observation that specimens taken by others in summer were for the most part very light in dorsal color, whereas specimens taken by the authors in early October, when nights were very cool (and daytime temperatures were mild) were not or scarcely bleached. A seasonal variation could account for the observed discrepancy, and could also help to explain the abundance of that taxon at a time when relatively few other reptiles were active (Lemos-Espinal et al., 1994). That hypothesis was explicitly proposed by Chiszar et al. (1995).

A test of that hypothesis was conducted 9–11 July 1995, 9 August 1995, and 3–7 July 1996, by one of us (JAL-E), collecting at some of the same sites visited by us in 1993 and by others earlier who had found strongly bleached specimens. A total of 46 specimens was collected, all in the great Cabeza de Vaca sand dune area in northern central Chihuahua (see map, Smith et al., 1995: 46), as follows (all specimens in the University of Colorado Museum, UCM): 58445-8, rest stop on Hwy 45 (km 307.6) 11.2 km S Samalayuca, 9 July; 58453, 58455-60, Rancho Luz Alva, 10 airline km WSW Samalayuca, 10 July; 58544-62, El Setenta, 16 km S Samalayuca, 5–7 July; 58461-3, Nuevo Rancho Alegre, 14 airline km W El Setenta, 11 July; 58449-52, Rancho El Jonuco, 16 airline km W El Setenta, July 11; 58511-9, base of Cerros Colorados, 22 airline km SE Samalayuca (straight south of Rancho El Sabinoso, close to the edge of the dunes, as shown on map, loc. cit.), 3–4 July and 9 August.

In this series of 46 specimens, all caught in midsummer except for the three taken 9 August, the dorsal coloration closely matches that observed in the paratypes taken in some of the same places in October. Three large females qualify as faded; one (58446) is from 11.2 km S Samalayuca, one (58455) from Rancho Luz Alva, and one (58449) from Rancho El Jonuco. Others from those same localities are "normal." Four of the six females from El Setenta are rather light above, and the dorsolateral series of dark spots is absent or scarcely visible, whereas only three of 13 males from that locality are similarly marked. There are no differences in dorsal coloration between the two sexes in the nine from Cerros Colorados.

Therefore no evidence of seasonal variation in dorsal coloration of this subspecies was found among the available specimens (59) from eight localities, although existence of the variation was confirmed. However, all specimens were found on fence posts or yuccas. It is possible that some individuals may live mostly on the sand floor of the dunes, and if so they may well be lighter in color than those found on fence posts and yuccas. Suggestive is the fact that the lightest specimen of all (58455) from Rancho Luz Alva), as well as the one from south of Samalayuca (58446), was from an exceptionally sandy area with sparse vegetation. The most notable lizard of the dunes themselves, *Holbrookia maculata bunkeri*, is extremely light, more or less matching the dunes in dorsal color.

The variation in size and ventral coloration in this series conforms with parameters established in the original description. All females exhibit gular semeions, even at the smallest size represented (47 mm SVL). One female, the largest at 67 mm SVL, shows faint evidence of abdominal semeions; none of the other 15 have any evidence whatever of them.

The abdominal semeions of males are characteristically short, but seem to lengthen with age. In none do they reach the insertion of the hind leg, although they are close (2–3 scale lengths) in the largest specimens (four, 60–64 mm SVL). All males, including the smallest at 44 mm SVL, possess well developed semeions, both gular and abdominal.

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Mexican Amphibians and Reptiles in the West Texas A & M University Natural History Museum

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Abstract

All amphibians and reptiles from Mexico in the West Texas A & M University Museum of Natural History are briefly listed with localities and notes on those of special interest. On the basis of a large series of *Ctenosaura acanthura* and *C. similis*, their external differential characters are reviewed; state records are recorded for *Syrrhophus leprus* and *Agkistrodon bilineatus*; the range of *Ameiva festiva* is extended; and a size record for *Cnemidophorus guttatus* is reported.

Field courses and personal excursions in Mexico, conducted by faculty members and their students of West Texas A & M University from 1967 to 1973 and in 1981 resulted in accumulation at WTAMU of a considerable number of amphibians and reptiles from that country. We here record those specimens for the benefit of workers who would otherwise not be aware of them.

Early Mexican collections, with catalog numbers lower than 4000, were made at various times from 1967 to 1973 by Dr. Ronald McKown, then of the Biology/Geosciences Department at WTAMU, and by some of his students. The latter included Derl Brooks, K. M. Brown, H. Feese, David Haynes, Jack Lanham, Ted Rush, B. R. Smith, D. Stout and M. Willson.

The 1981 material, all with numbers higher than 6000, was secured during June by a group of students under the supervision of Drs. Flavius C. Killebrew and Derl Brooks of WTAMU. The students included Ken Brewer, Brad Brooks, Brenda Carrigan, Barbara Garcia, Tim Green, Susan Grimsley, Terry James, Burgi Lehmann, Joe Pierce, Miles R. Rhea and Ron Sharber.

Our present review confirms the presence of 491 specimens of amphibians and reptiles from Mexico, of 57 species. Of particular significance, both historically and taxonomically, is the series of *Ctenosaura acanthura* and *C. similis*, in view of their threatened survival and difficulty of distinction. Likewise spectacular is the only known specimen of *Agkistrodon bilineatus* from anywhere between central Tamaulipas and Chiapas or Campeche. There is a state record and known range extension for *Syrrhophus leprus*, a known range extension for *Ameiva festiva*, and a size record for *Cnemidophorus guttatus*.

Some specimens were purchased in markets, and therefore have no locality data or bear only the name of the city where purchased.

Unfortunately 101 cataloged specimens, most from the early collections, are no longer present and were probably borrowed without record. Most represent taxa of which other specimens are available from Mexico, but nine are not otherwise represented. We include those catalog numbers and taxa in our account, with appropriate reservations.

The total of 592 specimens of 66 taxa cataloged or otherwise available from Mexico in the WTAMUMNH is a small but significant component in this little known but exceptionally broadly and extensively representative museum. The Director, Dr. Kathleen Blair, will be glad to respond to any interests, botanical or zoological, expressed in it.

List of Taxa

Bolitoglossa mexicana Duméril, Bibron and Duméril. *Chiapas*: Palenque (1898). Not found, but identification conformant.

Bufo marmoreus Wiegmann. Three. *Veracruz*: Alvarado (8045, 8048). *Chiapas*: Agua Azul (8042).

Bufo marinus Linnaeus. Thirty-five. *Campeche*: SW of Francisco Escarcega, Hwy 186 (2068, 2927). *Chiapas*: Agua Azul (7587, 7589, 7593, 7595, 7597–8. 7600–1, 7603–5, 7610); 10 mi S Campeche state line (7602); Palenque, Hotel de las Ruinas (7590–1, 7594, 7608); Palenque (2070–1); Río San Pedro crossing at Catazajá (1362–6, 2066–7). *Coahuila*: 9.3 mi SE Guerrero (764). *Quintana Roo*: Tulum (7588, 7592, 7596). *Veracruz*: Alvarado (1896).

Bufo punctatus Baird and Girard. One. *Coahuila*: SE Cd. Guerrero (818).

Bufo speciosus Girard. Ten. *Coahuila*: SE Cd. Guerrero (785–9, 800–4).

Bufo valliceps Wiegmann. Thirty-nine. *Chiapas*: Agua Azul (8037–41, 8043, 8050, 8077). *Quintana Roo*: betw. Cancún and Tulum (8036); Laguna Beach motel 2 mi S Bacalar (8051); 3 mi S Tulum (8052–76). *Veracruz*: Alvarado (8044, 8046–7, 8049). Thirty-five cataloged specimens were not found: *Chiapas*: Agua Azul (8139–41); Palenque (2005–7, so identified; 1331–4, 1361 unidentified but presumed to represent *B. valliceps*). *Coahuila*: 7.5 mi SE Cd. Guerrero (770, 792–3). *Quintana Roo*: Tulum (8143). *Veracruz*: Alvarado (1321–9, 1354); Tuxpan, Terrace restaurant (8142).

Eleutherodactylus berkenbuschi (Peters). Thirteen. *Chiapas*: Palenque (1344); Río San Pedro crossing at Catazajá (2410; 2409 missing). *Veracruz*: N of Córdoba, S of Huatusco (2411–3); Huatusco (1367–8; 1378 missing); 3.2 mi S Huatusco (320–1, 323, 326, 328–9); 322, 324–5, 327 missing).

Eleutherodactylus rhodopis (Cope). Nine. *Chiapas*: Río San Pedro crossing at Catazajá (2409). *Veracruz*: 3.2 mi S Huatusco, Hwy 139 (324); 8 mi S Huatusco (2404–8, 2886–7).

Gastrophryne usta retifera Lynch. *Veracruz*: Cardel (1335–7). Not found but identification conformant.

Hyla eximia Baird. Forty-five. *Durango*: 4 mi W El Salto, Hwy 40 (1210–43, all juveniles).

Hyla microcephala Cope. Twenty-eight. *Campeche*: Cd. del Carmen (1370–1, 1899(6)). *Chiapas*: Agua Azul (8188, 8190–8, 8201, 8205–11). *Quintana Roo*: Tulum (8197). *Veracruz*: mouth of Río Alvarado (8186).

Hyla loquax Gaige and Stuart. One. *Campeche*: Cd. del Carmen (1369).

Leptodactylus melanonotus (Hallowell). One. *Veracruz*: 1st river crossing S Río Tuxpan (2421; 2414–20 not found).

Phrynohyas venulosa (Laurenti). Seven. *Veracruz*: Alvarado (1248); Paso del Toro, Hwy 40 (1260, 1262–3, 1265, 1268, 1270; missing are 1259, 1264, 1266–7, 1269, 1271–3).

Physalaemus pustulosus (Cope). Six. *Veracruz*: Paso del Toro (1338–43).

Rana berlandieri Baird. *Tamaulipas*: Hwy 101 (2639). Not found but identification conformant.

Rana brownorum Sanders. Five. *Chiapas*: Agua Azul (no no.; 105 mm snout–vent length [SVL]); Palenque (1355–7, 88–105 mm SVL). *Quintana Roo*: Laguna Bacalar, 2 mi S Ba calar (no no.; 93 mm SVL). Not found were 2688–9 from Río San Pedro at Catazajá, *Chiapas*.

Rana forreri Boulenger. Two. *Nayarit*: Santiago (1377, 1389; 1381 not found).

Rana vaillanti Brocchi. Three. *Campeche*: Cd. del Carmen (1901–3; tag missing on 1901).

Rhinophrynus dorsalis Duméril and Bibron. Six. *Veracruz*: Alvarado (1274, 1283, 1286, 1289, 1292, 1293; missing are 1275–82, 1284–5, 1287–8, 1290–1, 1294–9).

Scaphiopus couchi Baird. Seven. *Coahuila*: 8.4 mi SE Cd. Guerrero (775, 819–20; missing is 772 from 7.5 mi SE Cd. Guerrero). *Tamaulipas*: Matamoros (2099–2102).

Scinax staufferi (Cope). Twenty-six. *Chiapas*: Agua Azul (8189, 8199–8200. 8202–4); Río San Pedro crossing at Catazajá (2351). *Veracruz*: Alvarado (1358–60); Alvarado toll gate (8185); 2.6 mi N Palma Sola, Hwy 180 (316); 6.7 mi N Palma Sola (2396–2403); Paso del Toro (1345–9, 1351–2; 1350 missing).

Smilisca baudini (Duméril and Bibron). Forty-seven. *Chiapas*: no locality (one uncataloged); Agua Azul (nine uncataloged); Palenque (2391–5); Palenque, Hotel de las Ruinas (five uncataloged). *Veracruz*: Alvarado (1244-61249–54, 1256–7; not found were 1247–8, 1255, 1258; one not cataloged). Also not found were 1308–20, Paso del Toro, Veracruz.

Syrrhophus cystignathoides (Cope). One. No locality (no no.).

Syrrhophus leprus Cope. Six. *Campeche*: Cd. del Carmen (1900(6)). These conform with Lynch's (1970) description and figures, but extend the known range northward from Tabasco and Guatemala into Campeche. Five are juveniles 16–19 mm SVL; one adult measures 25 mm SVL. Although on cladistic grounds this paraphyletic but monotypic genus has commonly been lumped with *Eleutherodactylus* in recent years, we regard its retention as justifiable in view especially of the enormous size of the latter genus, as argued in Smith and Smith (1993: 67-68).

Xenopus laevis (Daudin). *Campeche*: Cd. del Carmen (1904–6). Not found. Identification may be incorrect. The species is otherwise known to have been introduced only into Baja California, in Mexico (Flores Villela, 1993: 19).

Chelonia agassizi Bocourt. One. *Sonora*: Puerto Peñasco (2706).

Chelydra serpentina rossignoni (Bocourt). *Chiapas*: Palenque (2608). Not found, but identification conformant.

Dermatemys mawei Gray. Two. No locality (2748, 13185).

Kinosternon integrum Le Conte. One. No locality (2714).

Kinosternon creaseri Hartweg. Two. *Yucatán*: 3 mi E Progreso (no no.; 103 mm carapace length); no locality (2716, 104 mm carapace length).

Kinosternon scorpioides cruentatum (Duméril and Bibron). Two. No locality (1159, 2717).

Rhinoclemmys areolata (Duméril and Bibron). *Quintana Roo*: Hwy 307 betw. Cancún and Tulum (13178). Not found, but identification conformant.

Rhinoclemys pulcherrima pulcherrima (Gray). Two. No locality (1157, 2725, large adults).

Staurotypus triporcatus (Wiegmann). Three. No locality (2721, 2732). *Veracruz*: Veracruz (1174).

Terrapene coahuila Schmidt and Owens. Two. *Coahuila*: Cuatro Ciénegas (1105, 1107; 1106 missing).

Trachemys scripta cataspila (Günther). *Tamaulipas*: south of Cd. Victoria (1176). Not found but identification conformant.

Ameiva festiva edwardsi Bocourt. One. *Veracruz*: Punta del Morro, 42.3 mi S Nautla (8152). Northernmost record of the species. Six full-sized rows of ventrals, central gulars greatly enlarged, a broad, wavy middorsal light line.

Ameiva undulata amphigramma Smith and Laufe. One: *Veracruz*: mouth of Río Alvarado, 6.3 mi E Alvarado (8084).

Ameiva undulata gaigeae Smith and Laufe. Three. *Yucatán*: Progreso (8079–80, 8085).

Ameiva undulata stuarti Smith. One. *Chiapas*: Palenque, Hotel de las Ruinas (8078).

Basiliscus vittatus Wiegmann. Eight. *Chiapas*: Agua Azul (8157–60); Palenque (2607, 8161). *Quintana Roo*: Bacalar Laguna (8162). *Veracruz*: 4 mi S Veracruz (2606).

Cnemidophorus angusticeps Cope. Seven. *Yucatán*: Progreso (8016, 8026–7, 8030–3). One without locality (8035) was not found.

Cnemidophorus costatus huico Zweifel. One. *Sinaloa*: Pánuco (15033, large male).

Cnemidophorus deppei deppei Wiegmann. Fourteen. *Veracruz*: Alvarado (2585, 8028); 6.3 mi E Alvarado, mouth of Río Alvarado (8029); 4.6 mi NE Alvarado, Río Alvarado (8018); Punta del Morro, 42.3 mi S Nautla (8017, 8019, 8022–5, 8034). The incidence of four supraoculars in the latter seven is relatively high (one with 4-4, three with 3-4, three with 3-3), indicative of the influence of *C. d. schizophorus* northward from the vicinity of Nautla (Smith and Brandon, 1968: 55-59). However, all are small, with a light venter, as in the latter subspecies.

Cnemidophorus guttatus guttatus Wiegmann. Fourteen. *Chiapas*: Palenque ruins (8156). *Veracruz*: Alvarado (8153); 6.7 mi N Palma Sola (2937); Punta del Morro, 42.3 mi S Nautla (8020–1, 8145–51,8154–5); 1.2 mi S Zempoala jct on Hwy 180 (2937; 317–8 not found). No. 8153 establishes a

new size record for the species, at 142 mm SVL.

Ctenosaura acanthura (Shaw). Twenty-three. No locality (5, no numbers). *Veracruz*: Alvarado (2777, 2781–4); 4.6 mi NE Alvarado, Río Alvarado (7584); S of Palma Sola (2779, 2922–4); 2.6 mi N Palma Sola (313); 1.9 mi N Palma Sola (2785); 3.7 mi N Palma Sola (1375); 6.7 mi N Palma Sola (2780, 2925); 7 mi N Palma Sola (2926); Punta del Morro, 42.3 mi S Nautla (7581); Veracruz (444).

Ctenosaura similis (Gray). Fourteen. No locality (no no.). *Campeche*: 2.1 mi S Campeche (7583); 10 mi S Campeche (7586); 20.1 mi S Campeche (no no., 15081–2); 1 mi NE Cd. del Carmen, Hwy 180 (2776); S of Champotón, Hwy 180 (2775); betw. Champotón and Campeche (2778). *Quintana Roo*: Tulum, beach off Hwy 307 (7580); 3 mi S of Tulum, along coast (7582,7585, 15083). *Yucatán*: Chichén Itzá, 2.3 mi S Pisté (7581).

Although *C. similis* occurs sympatrically with *C. acanthura* in southern Veracruz, none in this collection is from that state. The two species are very similar in external features and have therefore long been confused, although they are trenchantly different in skull structure. *C. acanthura* (Figure 1) has a long parietal shelf extending to the rear edge of the skull, much as in *C. pectinata* (Oelrich, 1956: fig. 3); it is completely lacking in *C. similis* (Figure 2). Fortunately that difference is reflected externally: the midvertical plane intersecting the occiput lies in front of or even with the anterior border of the tympanum in *C. similis*, whereas it lies opposite the rear half of the tympanum in *C. acanthura*. That difference is consistent throughout the present series, which includes a wide range of sizes in both species, from 129 to 355 mm SVL in *C. similis*, 102–305 mm in *C. acanthura*.

In addition, the middorsal crest disappears completely for a short distances (±10 scales) on the rump in *C. acanthura* even in the largest specimens, whereas it is continuous across the rump in *C. similis*. Even in the smallest specimens of the latter species the scales in the median row are at least slightly enlarged and keeled, with at most an interruption of 2–3 scales. In mature adults of *C. similis* the crest is conspicuous across the sacral region, several millimeters high.

The color and pattern vary greatly in *C. acanthura*, both individually and, apparently, ontogenetically. Some have conspicuous dorsal and ventral crossbars, but those markings are apparently always lost in adults, which become a more or less unicolor black, gray or tan. Even some young individuals become more or less uniformly dark. In *C. similis*, however, the prominent dorsal black spots or bars, separated by light areas, remain throughout life, as do the diagonal ventral dark streaks. They never become essentially unicolor as is common in *C. acanthura*.

Hemidactylus frenatus Schlegel. One. Veracruz: Alvarado (15034).

Iguana iguana rhinolopha Wiegmann. Seventeen. No tag (one). No data (6823, 11603, 14060). *Campeche*: 21.1 mi S Campeche, Hwy 180 (7579); Cd. del Carmen (1374, 1390); 1

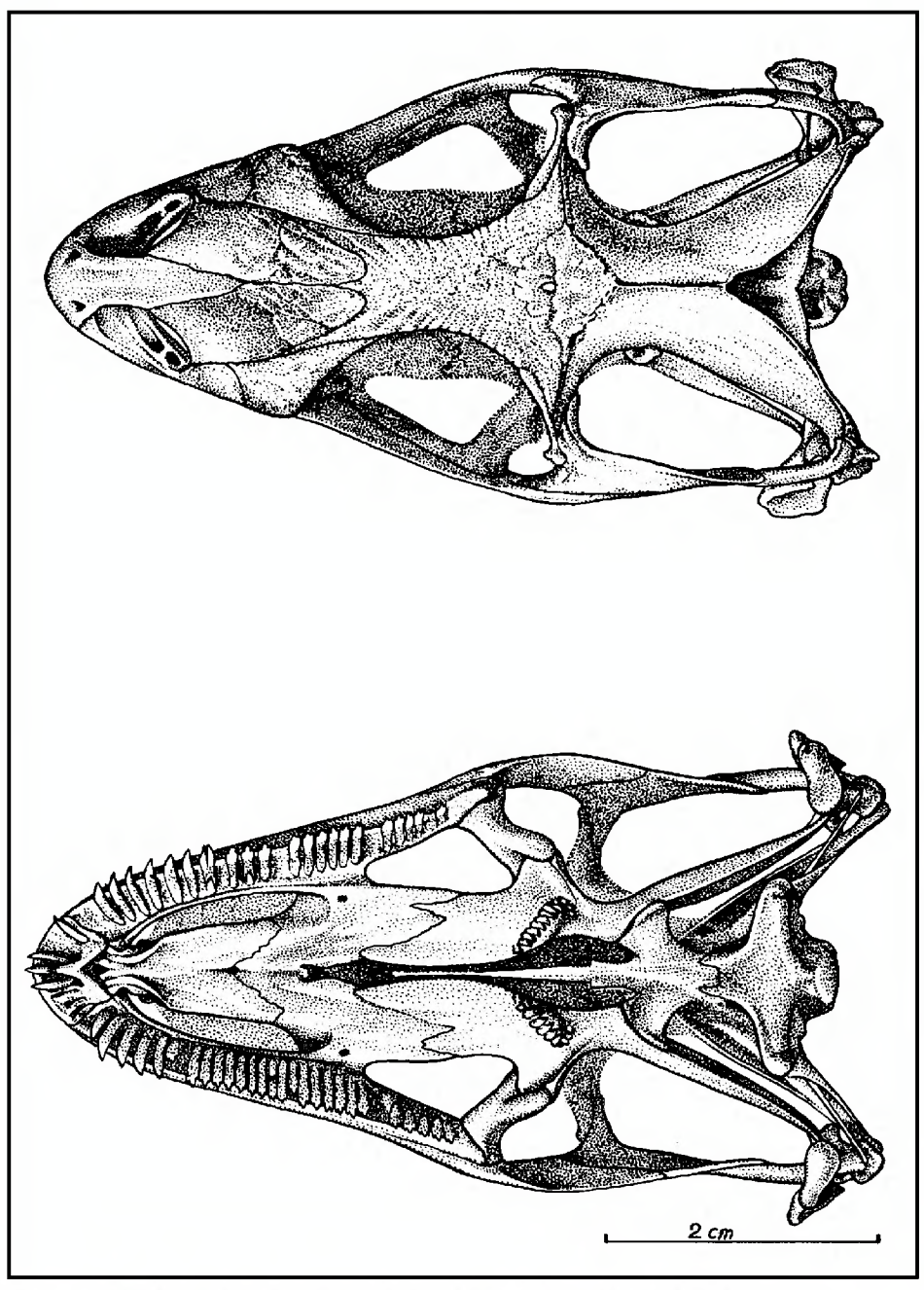

Figure 1. Dorsal and ventral views of the skull of *Ctenosaura acanthura*, from MCZ 5017. Prepared by J. B. Clark for a manuscript on the genus *Ctenosaura* by Clayton E. Ray and E. E. Williams.

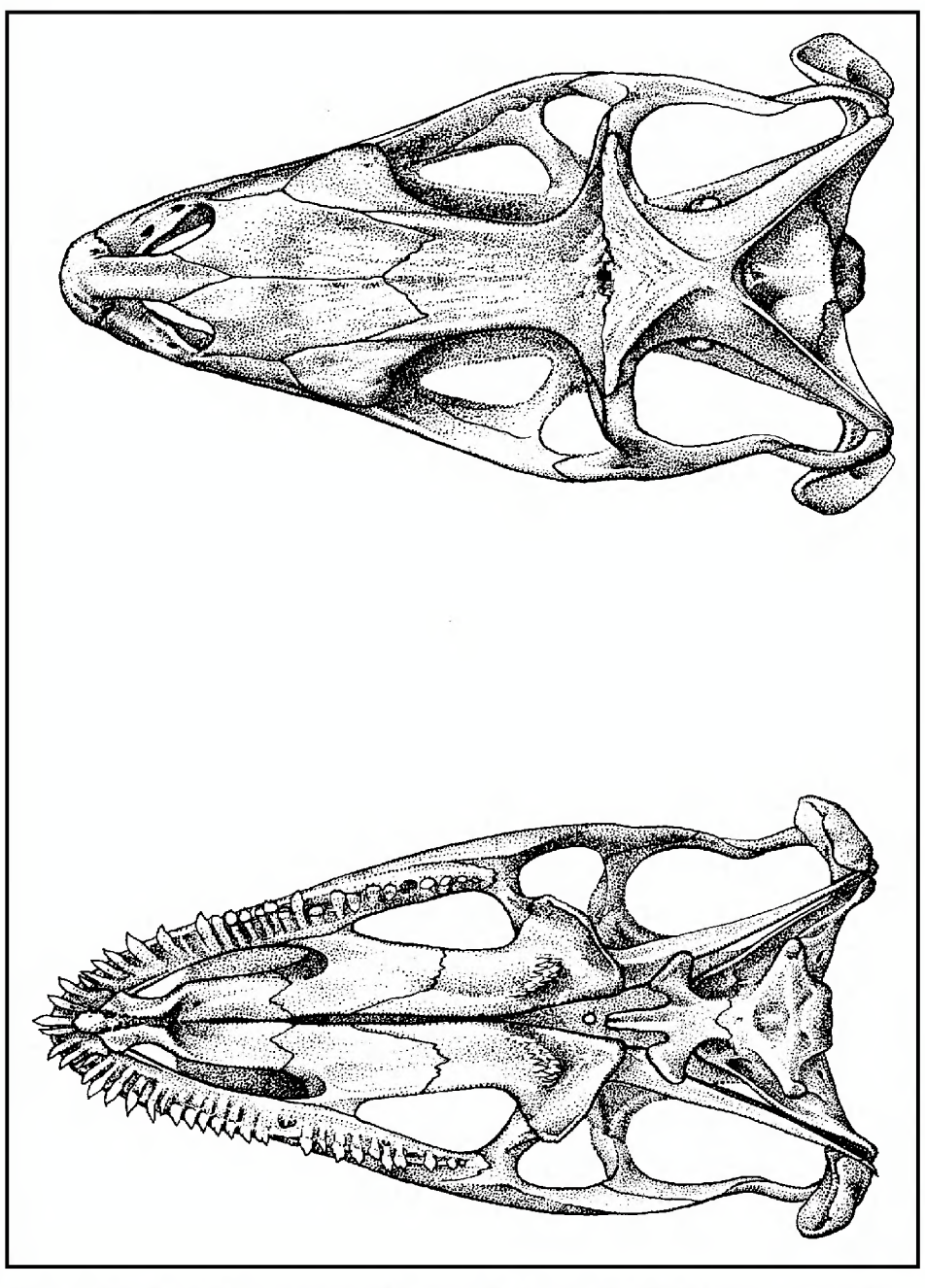

Figure 2. Dorsal and ventral views of the skull of *Ctenosaura similis*, from MCZ 21742. Prepared as indicated for Figure 1.

mi NE Cd. del Carmen (2792, 2929); 2 mi NE Cd. del Carmen (2789–91); 3 mi NE Cd. del Carmen (2786–7). *Veracruz*: 2 mi N Palma Sola, Hwy 180 (319). A specimen (14452) from Tulum, *Quintana Roo*, could not be found.

Sceloporus chrysostictus Cope. Five. *Yucatán*: Progreso (8229–30, 8290, 8294, 8296).

Sceloporus cozumelae Jones. Fourteen. *Quintana Roo*: Tulum (8235). *Yucatán*: Progreso (8225–8, 8288–9, 8291–3, 8295); Telchac Puerto, 49 mi N Mérida, Hwy 281 (8173–5).

Sceloporus variabilis marmoratus Hallowell. Six. *Veracruz*: Tuxpan (1382, 1387, 2794 (latter mistagged 2594)); Cardel (2548–50).

Sceloporus variabilis variabilis Wiegmann. Forty-one. *Veracruz*: no locality (8274–6); Alvarado (8163, 8231); Alvarado Beach (2934–5; 2933 not found); 4.6 mi NE Alvarado, Río Alvarado (8172); 6.3 mi E Alvarado, mouth of Río Alvarado (8163, 8233(2), 8277–87); 6.7 mi N Palma Sola (2936); Punta del Morro, 42.3 mi S. Nautla (8164–9, 8232, 8234); Zempoala (2595, tagged 2795; 2930–2). Three (314–5, 2551) from 2.6 mi N Palma Sola, *Veracruz*, were not found.

Agkistrodon bilineatus (Günther). One. *Veracruz*: N of Palma Sola (1385). Only specimen known of the species from the state of Veracruz. Its taxonomic status is under consideration.

Bothrops asper (Garman). One. *Quintana Roo*: 37.4 mi S Tulum, Hwy 307 (14807).

Coniophanes imperialis clavatus (Peters). One. *Quintana Roo*: Bacalar (14804).

Conophis lineatus lineatus (Duméril, Bibron and Duméril). One. *Veracruz*: Alvarado (14805).

Crotalus durissus durissus Linnaeus. One. *Campeche*: NE of Campeche on Hwy 180 (1386).

Dryadophis melanolomus melanolomus (Cope). One. *Yucatán*: Chichén Itzá (14809).

Dryadophis melanolomus veraecrucis Stuart. One. *Chiapas*: Palenque ruins (14806).

Drymobius margaritiferus margaritiferus (Schlegel). Two. *Campeche*: 24 mi N Escárcega, Hwy 261 (450). *Quintana Roo*: betw. Tulum and Cancún (14524).

Masticophis mentovarius mentovarius (Duméril, Bibron and Duméril). One cataloged specimen (312) from 4 mi E Mante, Hwy 80, *Tamaulipas*, was not found, but its identification is conformant.

Nerodia rhombifera werleri (Conant). One. *Veracruz*: Alvarado (2902).

Oxybelis aeneus (Wagler). One. *Veracruz*: 24.3 mi S Veracruz (14525). Another, not found, is cataloged (1897) from Palenque, *Chiapas*.

Oxybelis fulgidus (Daudin). One. *Quintana Roo*: 3 mi S Tulum, Hwy 307 (14808).

Scaphiodontophis annulatus (Duméril, Bibron and Duméril). One. *Chiapas*. Palenque ruins (14803).

Acknowledgments

We are much indebted to Dr. Kevin de Queiroz for use of the drawings of the skulls of *Ctenosaura* reproduced herewith; and to Drs. Carl Bock, Michael Breed, Michael Grant and Shi-Kuei Wu for space and facilities.

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Bull. Chicago Herp. Soc. 32(8):177-178, 1997

Book Review: *Snakes in Question: The Smithsonian Answer Book* by Carl H. Ernst and George R. Zug. 1996. Washington, DC: Smithsonian Institution Press. xviii + 203 pp. ISBN 1-56089-649-2. Hardcover $49.00, Softcover $24.95

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So how much do you know about snakes? Whatever the level of your herpetological expertise, you will find much of interest in this new book. Authors Ernst and Zug, both respected and well-published herpetologists, have produced an accessible and readable guide to snake biology that is unique in its clarity and presentation.

In the preface, the authors state that they have set out to answer "the most frequently asked questions about snakes." Recognizing that snakes both fascinate and repel many people,

they emphasize that the facts about snakes are often more amazing than the many fabrications and exaggerations found in folklore. They note that understanding snakes will surely make them seem less frightening—and less likely to be killed by the fearful.

No particular level of education is assumed for the book's target audience, though readers are presumed to have a "heightened curiosity about snakes." The authors avoid the use of unnecessary scientific jargon, but do not shy away from introducing (and defining) important technical terms or the use of scientific names. Most anyone with at least a ninth or tenth grade reading proficiency level would be able to comprehend this book, though a preexisting familiarity with the subject matter (or general biology) would be helpful. The exclusive use of metric units of mass, length, and temperature, without English conversions, may confuse older readers who may have had little exposure to this now-universal (except, unfortunately, in the USA) system of measurement.

The book is divided into five main chapters, followed by five appendices, a glossary, bibliographies and an index. Topics within each chapter are arranged in a question-and-answer format. The chapter subjects are "Snake Facts," "Folk Tales," "Giant Snakes: Big and Biggest," "Snakebite," and "Snakes and Us." The first and longest, "Snake Facts," is an introduction to basic snake taxonomy, physiology, reproduction, behavior and evolution. Here we find answers to a wide range of questions, from "What are Snakes?" and "How are Snakes Built?" to "Why and How Do Snakes Shed Their Skins?" and "How Many Kinds of Snakes Exist Today?" The authors assume that readers might use the book as a quick reference, based on the questions, and acknowledge that a few points might be repeated in later chapters.

The remaining chapters involve the "big questions" that dominate the public's perception and resulting fascination about snakes. "Folk Tales" runs through many common misconceptions regarding snakes, including "Are Snakes Cold and Slimy?" "Do All Venomous Snakes Have Triangular Heads?" "Do Snakes Milk Cows?" and "Do Venomous and Nonvenomous Snakes Interbreed?" Chapter three, on "Giant Snakes," breaks out of the question/answer format to survey the world's big snakes, mostly the large constrictors and the largest and most dangerous of the venomous species. The authors define "giant" snakes as those species exceeding 3 meters in length, and offer natural history summaries of all worthy species. (The title of longest snake is tentatively given to the anaconda, at 11.5 meters, with the reticulated python a close second at 10.1 meters.)

Chapter four, "Snakebite," is perhaps the most technical part of the book. Here we find text and tables describing the components of snake venom and the relative toxicity and venom yield of selected species, and descriptions of venom delivery systems. A brief section summarizes treatment for venomous snake bite and the production of antivenom serum.

The final chapter, "Snakes and Us," answers questions regarding the place of snakes in the environment and their importance to humans. Here the economic values of snakes, both as destroyers of pest species and as commodities in the skin, pet, and medicinal trades, receive attention. Nature center personnel and university herpetologists frequently receive calls from the public regarding snakes that turn up around human dwellings, with the callers often wanting to know how to keep snakes out of yards and homes, and this issue is treated in detail.

The authors discourage the collecting and keeping of snakes as pets, but, understanding the inevitability that people will want them, offer brief hints on picking and maintaining a healthy snake. This is by no measure a "captive care" book, however, and snake keepers are encouraged to consult one of the many available care manuals, some of which are mentioned in the bibliography. The chapter ends, appropriately, with a note on how much remains to be learned about snakes and the many possible areas for further research.

The five appendices are a nicely encapsulated wealth of information. The first offers a classification of snakes, including a hierarchical arrangement of families and a table of families and subfamilies with representative genera. Appendix two is a table of body sizes of selected snake species, showing (presumably average) neonate lengths, minimum lengths at maturity, and maximum known lengths. Appendix three is a chart showing the maximum speeds of various snakes, along with a few other animals (including humans) for comparison. (Many readers will be surprised at how slow snakes really are, since their linear movements often create the illusion of greater speed!)

Snake reproduction is summarized in appendix four, with average female size, mode of reproduction (oviparity versus viviparity), and numbers and masses of neonates noted for representative species from each family. Appendix five offers a listing of professional and selected regional herpetological societies. Since there were numerous other tables of information scattered through the text, it appears that those included as appendices were chosen rather arbitrarily. A useful and comprehensive glossary, general and "subject-keyed" bibliographies, and taxonomic and subject indices round out the book.

Both the beginning snake hobbyist and the seasoned research herpetologist (and everyone in between) will find this new book a valuable resource on snake biology and snake lore. *Snakes in Question* belongs in the library of anyone with an interest in snakes and/or general natural history.

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Book Review: *Snakes in Question: The Smithsonian Answer Book* by Carl H. Ernst and George R. Zug. 1996. Washington, DC: Smithsonian Institution Press. xviii + 203 pp. ISBN 1-56089-649-2. Hardcover $49.00, Softcover $24.95

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Recently I gave a snake lecture at a bookstore as part of a fund raising effort for a school. After showing a few slides and discussing a live boa constrictor the children and adults present were invited to ask questions. The questions were familiar: How many kinds of snakes are there? How do snakes eat? What is the most poisonous snake? And then there was my all time favorite, "How do snakes go to the bathroom?" If the questions had been posed by a child I would have provided a biological answer, but this time it came from an adult. Thus my answer went like this: Snakes don't go to the bathroom because they don't have any limbs to flush the toilet. Twenty-eight years of teaching experience has taught me that there really are ridiculous questions, but some people have a need to have them answered. Questions like this remind me exactly how far modern humans have psychologically removed themselves from the natural world.

Ernst and Zug use a question-and-answer format to provide the reader with an overview of snakes. The questions are organized into five chapters: The first chapter deals with basic snake biology. Chapter two looks at snake folklore. The third chapter examines giant snakes, but here the question/answer format is replaced by summary discussions of the largest boas and pythons, as well as the largest colubrids, elapids, and viperids. The last two chapters return to the question format and deal with snakebite issues and other human–snake interactions. Following the chapters are five appendices concerned with snake classification, body size, locomotion and speed, clutch and litter size, and herpetological organizations. A glossary, a general bibliography, a subject bibliography, and an index complete the volume.

There are 16 color plates, and 72 figures (line drawings and black-and-white halftones), most of which are of good to excellent quality. However, some of the halftones were made from slides and lack contrast, making them look flat and dull.

There are some problems with the text, albeit generally minor ones. On page 92 the authors wrote, "Folktales abound of pythons devouring babies and small children. Although a large *Python molurus* could do so, there are no authentic records of such occurrences." This statement is somewhat misleading, suggesting that human deaths cannot be attributed to *molurus*. Actually there are well documented instances of captive *molurus* killing humans. The two that immediately come to mind are a 1983 incident in Missouri, where a 100-pound, 16-foot *molurus* killed its 43-year-old owner, and a 1993 incident in Commerce City, Colorado, where a 24 kg, 3.36 m *molurus* killed a 43 kg, 15-year-old male while he slept. The latter victim weighed 179% of the predator's mass, and the snake apparently attempted to ingest him but failed. While neither instance resulted in ingestion and digestion, I have no doubt that a large *molurus* is capable of killing and ingesting a child or small adult. Ironically, the Colorado incident is noted, albeit incompletely, in a graphic on page 152.

Several pages (43-46) address hibernation and hibernation sites. It is interesting to note that there is no reference to aquatic hibernacula. While this is a poorly documented phenomenon and its discussion may not be appropriate in a book like this one, it is an interesting one. This reviewer has seen *Thamnophis radix* and *Elaphe vulpina* hibernating underwater through a layer of ice, and I suspect that *Thamnophis sirtalis*, *Nerodia sipedon*, and *Regina septemvittata* may also hibernate underwater occasionally.

Figure 1.26 (page 59) is labeled as *Heterodon platirhinos*; it is a *Heterodon nasicus*. On page 81 there is a discussion of the question "Do Mother Snakes Swallow Their Young?" and the authors end with the idea that the story's origin may have resulted from the discover of near full-term fetuses in a dead female. A number of years ago I encountered a very large and very gravid female *Nerodia cyclopion* that had been hit by a car. Much to my surprise the dying female was gaping her mouth so small snakes could emerge from her oral cavity. Further inspection showed that her gut had ruptured and the fully developed young, some still with fetal membranes intact, were being moved up the alimentary canal via peristalsis.

Publications on snakes are widely scattered in journals and it has become fairly difficult to keep up with the rapidly growing knowledge base. Thus, even for someone who specializes in serpents it has become a challenge to find all of the papers published on them. This kind of book, which takes into consideration the recent literature, thus becomes a valuable tool for the generalized herpetologist who needs a quick answer to a question that cannot be readily recalled. However, this book was not written for herpetologists; instead it was written for those who are interested in snakes but would not read journal articles or technical volumes. It is an excellent source of accurate information and quite appropriate for public or school libraries. There are a growing number of books like this one, and they are important because they provide reference points for future reading and investigation, and stimulate interest in animals that would otherwise be considered pests or vermin.

Bull. Chicago Herp. Soc. 32(8):180-182, 1997

HerPET-POURRI

by Ellin Beltz

Crocodiles beaten to death

The Associated Press reports that six Plant City, Florida, men have been charged with trespass and the felony killing of a crocodilian. The four men and two juveniles are accused of beating to death a pair of Nile crocodiles in a fenced cage at the Gator Jungle attraction. The owner of the gator park said, "You wonder what their mothers would think about them. It's really sad." The AP concludes "The Nile crocodile is the number one eater of humans on the African continent, and the reptiles have been known to attack animals as large as elephants. But these crocodiles hardly had a chance. They lived in fenced cages." [July 29, 1997: Fort Myers, FL *News-Press*, from Ardis Allen and *Gainesville Sun*, from Ken Dodd]

Cook County restoration still in limbo

Vegetative restoration of some parts of Cook County Forest Preserves (CCFP) has been all but halted following an outcry by some residents along the North Branch of the Chicago River who were upset when a screen of weedy shrubs facing a preserve were removed by volunteers. A series of newspaper articles in the *Sun-Times* followed—unfortunately the reports were highly biased against restoration. Several editorial cartoons implied that the CCFP was permitting logging on its property. What is really happening is people just like us giving up their weekends to remove non-native vegetation and collect and spread native seeds. While at first glance, plants and herps may seem to be two different things, it does affect native amphibians and reptiles. Restored land is better habitat for herps than golf courses, green fields, softball diamonds and parking lots. The Cook County Commissioners are continuing to take public comment on this issue. You can find out who your commissioner is by calling the Citizens' Information Service at (312) 939-4636 ext. 38. All the commissioners can be contacted at Room 567, 118 N. Clark Street, Chicago, IL 60602 or by fax at (312) 443-4678. [*North Branch Restoration Project Newsletter*, July 1997, from Jane and John Balaban]

Scientists dissect frog deformities

While many news reports have singled out causes for the alarming increase in reported deformities in frogs (bacteria, ultraviolet, chemicals, pesticides, nematodes and so on), the latest news is that scientists are still not sure what is causing the deformities. The scientist with the most previous press coverage (Stan Sessions of Harwick College) insists that parasites are the only cause and that he has induced extra limb development by infecting laboratory frogs. However, at a recent conference at Stony Man Mountain, Virginia, scientists presented other potential causes. Martin Ouellet of McGill University Montreal has studied more than 100 ponds in the St. Lawrence River Valley for four years presented the results of his work which implicate new types of pesticides as a major player in the frog deformity equation. Kathy Converse of the National Wildlife Health Center in Madison, Wisconsin, pointed out that if the deformity cause is indeed a pesticide, it must be a new one and the reports of deformed frogs have jumped from a "background" of one percent to as high as 69 percent in ponds which receive pesticide runoff. David Gardiner, a molecular biologist from the University of California Irvine, suggested that the deformities are caused by a new group of chemicals which mimic growth hormones. He has successfully replicated deformities such as those found in wild populations in the laboratory, growing frogs with extra legs and eyes by adding retinoic acid, a by-product of retinoids such as those found in acne medication and skin cream. [Orlando, FL *Sentinel*, May 25, 1997, from Bill Burnett]

Chemical control on tail loss

Robert Denver of the University of Michigan in Ann Arbor studies what makes tadpoles metamorphose into adult frogs. While researchers have long known that thyroid hormones play a large role in metamorphosis, this work utilized a hypothalamus hormone called corticotropin-releasing hormone (CRH). Thyroid hormones increased and metamorphosis occurred faster. Curiously, as water levels in the tadpoles' tanks were reduced, natural CRH production increased and metamorphosis occurred 33% faster than in the control group. Denver says that CRH "is exquisitely sensitive to stress in the environment" of all vertebrates. Salmon fingerlings use CRH to change to the adult stage. The hormone is produced under stress, whether rush hour traffic or a drying pond. CRH also plays a role in the beginning of human labor. A researcher at Cornell University's Laboratory for Pregnancy and Newborn research says that Denver's results "make very good sense.... Here is a very old system of metamorphosis in tadpoles which utilizes CRH and that same system has been put to use in labor and delivery." [*Science News*, Volume 151, May 10, 1997, from Mark T. Witwer]

Vets save herps

- A boa constrictor in Klamath Falls, Oregon, ate a heating pad! The veterinarian who surgically removed it said, "This heating pad apparently satisfied all the criteria for food as far as this snake was concerned. It was warm and fuzzy and had some hard objects inside that must have felt something like bones." [*Chicago Tribune*, July 13, 1997, from Ray Boldt]

- A White's tree frog named Charlie ate a few marbles that had decorated his cage for months. Charlie's 14-year-old owner said "He would have died. He wouldn't do anything; he wouldn't open his eyes, he just laid there." A veterinarian in Jackson Hole, Wyoming, surgically removed the marbles. He said, "I like challenges, and this was definitely a challenge. This was the equivalent of a person swallowing a cantaloupe, size-wise. Maybe a watermelon." [Jackson Hole, WY *News*, May 28, 1997, from Debra Patla]

- A veterinarian at the North Carolina State University Center for Veterinary Medicine is the faculty advisor of "the Turtle Crew." Composed of about 40 vet students, the Crew treats turtles brought in by good Samaritans. About 80 percent of the victims have been hit by cars. One Crew member said, "Even though it takes a long time to see any reward because

everything about turtles is slow—their metabolism—everything. . . . I guess the best thing for me is when I'm able to release one." About 60 to 70 turtles a year are treated; as many as possible are released. [*Journal of the American Veterinary Medical Association*, 211(2) July 15, 1997, from Gery Herrmann]

Still horny after all these years

An 80-ish Galapagos tortoise mom and a 90-ish dad recently produced eggs which hatched into a quartet of baby tortoises at Philadelphia Zoo. While a few zoos have had successful Galapagos reproduction, none in a nontropical climate has ever had live offspring. The curator of reptiles said, "It's incredible." The tortoises mated in December and mom dug a nest in the dirt-floored portion of her exhibit inside the Reptile House. The eggs were removed by a curator after four were crushed. The remaining five eggs were placed in an incubator and checked periodically. The first baby emerged April 7, the others later in the month. [*Wisconsin State Journal*, June 16, 1997, from Dreux Watermolen]

Gonna rename it "Lorena"?

The Las Vegas Sun reports: "A 47-year-old Las Vegas woman was recovering today after successful surgery to reattach a finger that was bitten off by her pet iguana. `I've never seen anything quite like this,' said . . . the chief of the plastic surgery division at the University of Nevada School of Medicine, who performed the operation. `Generally, animal bites cause a rough rip or tear, but this was clean—almost like a knife cut—right through the middle joint of the left ring finger.' The accident occurred as [the woman] gave a weekly bath to a 5-foot-long iguana she owned for five years. [She] was rushed to University Medical Center's trauma unit, where she underwent four hours of microsurgery to attach finger arteries and nerves." [July 22, 1997, from J. N. Stuart, and the AP bounce from Jack Schoenfelder]

I guess I'm strange, too

"Your average non-herper . . . simply does not understand my hobby. . . . The standard response [includes] . . . some rather strange looks and an apparent desire to get the hell away from this weirdo who can't be content with a budgie like normal people. . . . I feel sorry for the people who can't appreciate my pets, who see them as miniature monsters, and sometimes I wonder, is there perhaps something wrong with me that I adore them so much? . . . Am I strange? Perhaps I bumped my head too many times as a child? Is there maybe something wrong with me? . . . Then I shake my head, knowing that I have always been a little unconventional. This is part of what makes me special, and also part of what makes my pets special too." Damon Bailey [*MOKO*; New Zealand Herpetological Society Newsletter, 1997/2] You can visit the NZHS Web site that Damon created at <http://www.flying-dutchman.co.nz/herpweb/>.

Shellular communications, II

Six eastern box turtles outfitted with transmitters were released in Druid Hill Park near Baltimore in an effort by the Zoo to study habitat use, mating, foraging behavior and burrowing for winter hibernation. The project aims to find out if turtles taken from captivity and released in a different area than they were collected will survive. Some of the turtles participating in the study were confiscated from a turtle smuggler who was trying to pass the animals through a security checkpoint at Baltimore-Washington International Airport. The other turtles lived in the park, but were maintained in captivity at the Zoo briefly. Initial results show that the native turtles moved the farthest, while two of the confiscated turtles remained precisely where they were released. [*Baltimore Sun*, June 21, 1997, from Mark T. Witwer]

Genesis 3:14

Paleontologists have redescribed a fossil from an Israeli limestone quarry which was formerly considered a relatively legless lizard to being a legged early snake. The species, *Pachyrhachis problematicus*, lived in a shallow sea about 95 million years ago. *The New York Times* devoted a quiet, scholarly article [April 17, 1997, from Mike Dloogatch] while the *Little Rock Democrat-Gazette* [April 18, 1997, from Bill Burnett] has a more heartland spin on the story. After recapitulating the Biblical story the paper reports: "Though they're not saying the forbidden fruit was involved in the loss of snake appendages [researchers] say fossils . . . demonstrate that snakes once had legs. . . . [They] advance the bold suggestion that snakes are most closely related to the mosasaurs, giant swimming reptiles that lived at the time of the dinosaurs. . . . That hypothesis has been around since the 1800s, when the great paleontologist Edwin Drinker Cope proposed it. . . ."

Arribada, 1997

As many as 35,000 olive ridley sea turtles spent an hour or two on the beach at Escobilla, Mexico, laying eggs. The Associated Press reports, "The numbers are a good sign—showing the apparent success of a . . . subsidized alternative for poachers and navy guards patrolling the coast. . . . Local residents of this coastline 300 miles south of Mexico City, who were already poor before the country spun into economic crisis, can get $2.50 US for 100 eggs—about what each nest holds." [*Wisconsin State Journal*, June 27, 1997, from Dreux Watermolen]

Buzz, buzz, bite

- Residents of Ontario, Canada, are asked to report all sightings of the massasauga rattlesnake (*Sistrurus catenatus*) to the Metro Toronto Zoo, 361A Old Finch Avenue, Scarborough, Ontario M1B 5K7 to the attention of Andrew Lentini. [*Rattlesnake Tales*, June 1997, from Jason King and Bob Johnson]

- Some residents opposed the 10th Annual Rattlesnake Roundup in Alamogordo, New Mexico. The usual "events" were featured: snake-handling demonstrations, deep-fried rattlesnake, etc. A protestor said, "This is not education, it's a freak show, and it plays to people's worst fears about snakes. There's a snake show at the Alamogordo zoo. That's education. This is entertainment." He was one of the protestors from the Sangre de Cristo Animal Protection and People for the Ethical Treatment of Animals who stood outside the fairgrounds with signs urging people to "boycott this display of

cruelty." [*Albuquerque Journal*, April 20, 1997, from J. N. Stuart]

• A 15-month-old toddler was bitten by a pygmy rattlesnake in Lake County, Florida, and was flown to an Orlando hospital for treatment. Initially, his condition was critical, but he was released after a couple of days and was expected to be walking in a few days. The child had been walking in his front yard when he was bitten. [Orlando, FL *Sentinel* June 8, 9 and 14, from Bill Burnett]

Real webbed sites and other frog news

• The North American Amphibian Monitoring Program home page is a froggy site worth visiting on the Web. I particularly enjoyed the poetry page <http://www.im.nbs.gov/naamp3/naamp3poetry.html> which has frog haiku, frog rap and a longer work called "Salamanderfrogilisticexpialidocious." A post about deformed frogs reads, "Jeremiah was a bullfrog, was a good friend of mine. He only had two legs, instead of four. But instead of two eyes, he had nine. . . ."

• The "Friends of the Frog" website is at <http://www.friendsofthefrog.com/>. The group hopes to place a large frog sculpture in Grant Park, citing other public sculpture in Chicago including Oldenberg's Bat Column, Calder's Flamingo, Picasso's Head of a Woman (yes, that's what it's called) and Moore's Large Interior Form. So far, the Park District has not approved the project. [*The Cape Times*, Cape Town, South Africa, May 9, 1997, from Wes von Papineäu and Kimberley Heaphy]

• "I am trying to verify that the supermarket tabloid *Weekly World News* ran an article in about 1990 claiming that amphibians are in decline because aliens are collecting them for food. I'm using the comment in an otherwise serious article. . . . " Robert Gannon, 35 Burrowes Building Penn State, University Park, PA 16802, <rhg@psu.edu> [Editor's note: *Weekly World News* did in fact run such an article in their April 17, 1990, edition, under the headline "Space Aliens Stealing Our Frogs!" Ellin included the item in her January 1991 HerPET-POURRI.]

• The Declining Amphibian Populations Task Force (DAPTF) is offering 4-inch (10 cm) stickers featuring a *Neobatrachus* motif in a tasteful green and black printing. You can get it as a glass decal or an opaque sticker. Each is £1.00. "Please send cheques or international money orders (in British pounds only please) made payable to DAPTF . . . " to John Wilkinson, Department of Biology, The Open University, Walton Hall, Milton Keynes MK7 6AA, United Kingdom <DAPTF@open.ac.uk>.

• The government of South Korea is urging residents to collect all American bullfrogs on sight. Bullfrogs are eating their way through the fauna of local ponds, so the government is urging Koreans to eat as many bullfrogs as they can. They even had a frog cook-off in front of the Environment Ministry and recipes for fried frog, sweet and sour frog and frog gruel were distributed to the public. [Little Rock, AR *Democrat-Gazette*, June 13, 1997, from Bill Burnett]

Iguana drive you home, now, o.k.?
Undercover agents serving a warrant in Clearwater, Florida, had trouble believing their eyes when they noticed a car moving erratically along U.S. Highway 19. They called for police backup which followed the car for a couple of miles until it pulled over. At the wheel was a 3½-foot green and orange iguana. His owner was slumped down in the passenger seat, apparently drunk. An agent said, "It's not every day you find a lizard driving a car. And nobody had a camera." The man was arrested on a drunk-driving charge and the iguana was taken to the local animal shelter. [Orlando, FL *Sentinel*, June 14, 1997, from Bill Burnett] Some lawyer is going to have fun with this one. The iguana wasn't drunk, but it was driving without a license. The man was allegedly drunk, but he wasn't driving even though he was busted for DUI. So, are you responsible for underage, unlicensed iguanas that decide to drive your car while you're passed out in the passenger seat? I hope somebody out there finds the end of this story!

Thanks to everybody for contributing! I received two super postcards this month, one with a glorious red-eyed tree frog from Irene Flebbe, the other from Philip Jones from Thailand. My mailman really likes the postcards. So do I! You can join my ultrafavorite CHS members by cutting out whole pages of newspaper, or clippings with the publication/date slug firmly attached with tape, putting your name on each piece (return address labels are handy for this) and mailing to: Ellin Beltz, 1647 N. Clybourn Avenue, Chicago, IL 60614-5507. Sorry, no E-mail right now. Due to a bureaucratic snafu at my alma mater, *all* alumni E-mail accounts were cancelled as of August 8. We received six days notice. Apparently they will not be forwarding mail to our new service providers, either. Please do not use the old E-mail address as your letters will deposit in an electronic vacuum. I will post my new address in next month's column.

Bull. Chicago Herp. Soc. 32(8):183-184, 1997

Herpetology 1997

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

SONORAN MUD TURTLES IN SOUTHEASTERN ARIZONA

R. C. van Loben Sels et al. [1997, Chel. Conserv. Biol. 2(3): 338-344] from 1990 through 1994 conducted a mark–recapture study of *Kinosternon sonoriense* in the West Turkey Creek area of the Chiricahua Mountains in southeastern Arizona. A total of 580 individuals was marked, and 913 recaptures were made. Approximately 90% of the individuals were initially captured in stock tanks, 5% in stream pools and 5% on land. Sex ratio of adults was 1 male to 1.29 females. Of the 573 individuals captured alive, 18.5% were classified as juveniles, 35.8% as adult males and 45.7% as adult females. Four hatchlings captured in early August averaged 3.O g body mass and 22.2 mm carapace length (CL). Growth rates of juveniles from hatching to age 6 averaged 17.5 mm CL/yr. The youngest gravid female was 5 years old and the smallest had a CL of 106 mm. Maximum CL of adult males and females was 168 and 160 mm, respectively. There was no sexual size dimorphism between age classes 5 and 10 yr. Based on 39 females captured twice during the reproductive season, a minimum of 23% of the females in the population produced at least 2 clutches of eggs in a single year. Over all years clutch size averaged 6.7 eggs (range 2–11) and the sizes of first and second clutches were similar. Clutch means of actual egg widths from six females averaged 16.85 mm and were similar to mean egg widths taken from radiographs (XREW) of the same females (16.95 mm). Both clutch size and egg widths taken from radiographs were significantly and positively related to body size. No pelvic constraint on egg width was apparent since the slope of the relationship of CL to the pelvic aperture width determined with radiography (0.144) was significantly steeper than that of egg widths (0.041). The relationship between the residuals of clutch size with CL to XREW was negative. The average dry mass of egg yolks averaged 0.96 g (range 0.73–1.25 g), and comprised 28.75% non-polar lipids (range 26.47–29.87%). Egg shells averaged 32.75% of the total dry mass of the egg and were similar in proportion to eggs of other *Kinosternon*.

A NEW GENUS AND SPECIES OF SKINK FROM THE PHILIPPINES

J. W. Ferner et al. [1997, J. Herpetology 31(2):187-192] describe *Parvoscincus*, a new genus of small skinks inhabiting the litter in closed canopy forests on two islands in the central-western part of the Philippine Islands archipelago. The genus consists of two species, one of which, *Parvoscincus sisoni*, they describe as a new species on the basis of seven specimens from the Mt. Madia-as region of the Visayan island of Panay. The other species they assign to the new genus is *P. palawanensis*, formerly *Lygosoma* (*Sphenomorphus*) *palawanensis*, known from only three specimens from Palawan Island in the Philippines.

A PECULIAR NEW FROG FROM THE PANAMA–COLOMBIA BORDER

C. W. Myers and J. D. lynch [American Museum Novitates 3196] describe a new species of frog from the Cerro Tacarcuna area on the border between Panama and Colombia. *Eleutherodactylus laticorpus* is a medium-sized (SVL 30–40 mm), bluish-eyed eleutherodactyline having a broad head (49–55% of SVL), but with the body being even noticeably wider (58–72% of SVL), particularly when defensively inflated. It is the northernmost member of the South American *sulcatus* species group. The position of *E. laticorpus* within the *sulcatus* group is uncertain. Despite certain resemblances, it lacks a synapomorphy (involving the quadratojugal) uniting species from the Andean cordilleras of Colombia and Ecuador (*E. cadenai*, *E. cerastes*, *E. cornutus*, *E. helonotus*, *E. ingeri*, *E. ruizi*, *E. sernai*). *Eleutherodactylus laticorpus* shares a snout-shape character with the other extra-Andean member of the *sulcatus* group, namely *E. sulcatus* of the upper Amazonian basin, but this suggestion of sister-group relationship needs corroboration.

REPRODUCTIVE BEHAVIOR IN A GUYANAN FROG

G. R. Bourne [1997, J. Herpetology 31(2):221-229] studied courtship, amplexus and oviposition behavior of leaf litter and cavity breeding frogs (*Eleutherodactylus johnstonei*) in Georgetown, Guyana, using modified plastic planters equipped with observation windows. Both sexes used pots with and without plants as diurnal retreats, but there was a preference for pots with plants. Calling males showed no preference for pots with or without plants. Females preferred pots with plants for oviposition. A gravid female initiated courtship by touching a calling male, who then led the female to one or more potential oviposition sites. The female either accepted or rejected cavities as nest sites, and sometimes abandoned the male if the nest cavities were unacceptable. Unacceptable cavities had direct contact with soil. Only 45% of the mating pairs used axillary amplexus; males usually just sat on the females' backs. Twenty-five percent of the amplectic frogs then employed the reverse hind leg clasp after 0.50–1.75 h in the nest cavity. Oviposition lasted for 0.75–1 h, and approximately 14 externally fertilized, unpigmented eggs were laid in a pyramid. Fecundity was positively correlated with female size. The time from initial contact of the male by the female to egg laying was 4–6 h. Eggs hatched in approximately 13 d, and newly hatched froglets had SVLs of about 3.5 mm. Clutches were found during all months of the year; however, most clutches were deposited during the wettest months of the year. On average, males sired 3.3 clutches/year, while females produced 4.3 clutches/year. The most striking feature of *E. johnstonei*'s reproductive behavior is that a few pairs used a reverse hind leg clasp during amplexus; a behavior known previously only for *E. coqui*, which has internal fertilization.

EVOLUTION OF FORKED TONGUES

W. E. Cooper, Jr. [1996, Herpetol. Nat. Hist. 4(2):135-150] characterizes degrees of lingual forking in 11 families of squamate reptiles and assesses variation within and among taxa. Forking is rudimentary in iguanian families, being restricted to a shallow notch. It is most highly developed in anguimorphan and lacertiform families, but slight increases in notch depth are apparent in other scleroglossans, especially skinks. Forking differs appreciably among genera within families, but differences among species within genera are quite small. The magnitude of differences is far greater between families. Fork development increased with both lingual elongation and maximal area swept during a tongue-flick in correlations using Felsenstein's method of phylogenetically independent contrasts. Forking was negatively associated with the state of ventral pallets, which appear to act as sampling surfaces in the primitive condition, but show progressive decline as forking develops. Sampling functions of ventral pallets may have been taken over by tines in varanids and snakes. Lingual elongation posterior to the tines was not significantly related to area swept. Close associations between lingual forking, elongation and condition of ventral pallets suggest that these traits have coevolved to enhance chemosensory sampling. In particular, forking is believed to enhance vomerolfactory scent-trailing. The history of forking is reconstructed from the advent of minimal notching in the common ancestor of squamates and retention in Iguania through slight increases in notch depth in some scleroglossan families, to development of distinct tines in Lacertiformes and Anguimorpha. These findings support Schwenk's hypothesis that forking originated in Lacertiformes and Varanoidea and add information on evolution of forking in these taxa.

DISTRIBUTION AND ABUNDANCE OF COOTERS

P. V. Lindeman [1997, Chel. Conserv. Biol. 2(3):378-383] used a spotting scope with 22–60× zoom magnification to conduct eight replicated counts of basking turtles at fixed sites on three river drainages in Kentucky, Mississippi, and Louisiana. Less formal counts were also conducted on a fourth drainage in Kentucky. River cooters (*Pseudemys concinna*) were observed at 10 of 15 Kentucky Lake sites, at densities ranging from 0.09–0.87 individuals/100 m of shoreline, and comprised from 1.7 to 7.3% of all turtles seen at these sites. No river cooters were among the 175 emydid turtles identified at sites below Kentucky Lake Dam on the Tennessee River, where rapid changes in river level may adversely affect river cooter habitat. In surveys on the Pearl and Pascagoula drainages, river cooters occurred at only slightly higher densities but comprised a much higher percentage of all emydids surveyed. The ratio of slider turtles (*Trachemys scripta*) to river cooters was 18:1 in Kentucky Lake surveys. Ratios computed for basking surveys conducted on the Pearl, Pascagoula and Tradewater Rivers indicate that this ratio is greater for northern populations and for populations in lentic habitats such as reservoirs. Trapping results at three sites on Kentucky Lake correspond to spotting-scope counts, suggesting that use of a spotting scope may be an economical way to gather data on the distribution and population status of basking emydids.

REDESCRIPTION OF THE ARAKAN FOREST TURTLE

J. B. Iverson and W. P. McCord [1997, Chel. Conserv. Biol. 2(3):384-389] report that two Arakan forest turtles, *Geoemyda depressa*, a live adult male and female, were recently purchased in western Yunnan Province, China, 700 km northeast of the only previously known locality for the species in southwestern Burma (Myanmar). Only six specimens of this species have previously been recorded, and these two represent the first specimens collected since 1908. Based on all available museum material, they redescribe the species, although the identity of the type specimen remains equivocal. The Chinese animals are certainly extralimital and were probably imported from Burma for the food market.

CAUDAL LURING BY A RATSNAKE

H. M. Tiebout III [1997, J. Herpetology 31(2):290-292] reports the first documentation of caudal luring in a temperate colubrid snake, *Elaphe obsoleta*. This represents the third species in the family Colubridae to exhibit this behavior. His data are based on observations of a single laboratory-bred clutch (*E. o. quadrivittata* × *spiloides*) of 18 eggs. One hatchling refused to accept mice as food, but immediately ate an *Anolis carolinensis* when it was offered. This "anole-specialist" soon fell far behind its siblings in growth rate. It was first observed caudal luring in the presence of an *A. carolinensis* at the age of 5.5 months, with the behavior repeated during two other feedings the following week. The author then proceeded to test the anole-specialist and 12 of its siblings to see if they would attempt to pursue or caudal lure anoles when sufficiently hungry. Only the specialist showed the luring behavior. In general, the siblings showed little interest in the anoles; only the two smallest successfully captured and ate a lizard. The author also discusses the implications of caudal luring to the evolution of the rattle in rattlesnakes.

VARIATION IN ROCK RATTLESNAKE VENOMS

M. R. J. Forstner et al. [1997, J. Herpetology 31(2):277-287] assessed venom variation in the mottled rock rattlesnake (*Crotalus lepidus lepidus*) by polyacrylamide gel electrophoresis. Whole venom samples were stained for general protein, the banding recorded, and these profiles were used to compare the variation within and between populations in Texas. Analyses using agglomerative methods (phenetic clustering methods and neighbor-joining analyses) and ordination from Principal Components analyses provide several geographically correlated groups of rattlesnake venom profiles. Evidence is provided for differences in venom profiles of geographically distinct populations. Venom profiles of *C. lepidus* collected along the Rio Grande, though geographically disparate, are generally homogeneous. Thus, the analyses support previously hypothesized dispersal of *C. lepidus* in Texas along the Rio Grande canyons. A potential region of population interchange between eastern plateau populations and those of the west Texas mountain ranges was identified at the southern end of the Davis Mountains in Brewster County. Lethality assessments using LD_{50} analyses reveal that venom toxicity varies from 2.20 to 0.72 mg/kg across the geographic range for this subspecies.

Unofficial Minutes of the CHS Board Meeting, July 18, 1997

The meeting was called to order at 7:45 P.M. Board members Gary Fogel, Gary Kostka and Ty Park were absent.

Officers' Reports

The minutes of the June Board of Directors meeting were read, corrected and accepted.

The Treasurer's report was read by Jack Schoenfelder on behalf of Gary Fogel.

John Driscoll reported current membership to be 1199.

Committee Reports

Shows: The Springbrook Nature Center in Itasca is holding a nature expo on August 24 and has asked the CHS to participate. Interested parties should contact Jenny Vollman. Jack Schoenfelder reported that a garden shop in Cedar Lake, Indiana, is looking for someone to come out and talk about the care of reptiles and amphibians in ponds.

Nominating Committee: Chairperson Gino Martinez is having a committee meeting at his home on July 26. The committee consists of Gino, Jenny Vollman, Mike Dloogatch, Lori King-Nava and Jill Horwich.

1998 Reptilefest: The fest for 1998 still needs a new facility to hold the event. *Anyone* with *any* ideas or suggestions should speak with Lori King-Nava or Gary Fogel.

Old Business

Webpage: Jenny Picciola has a connection with a web development service. She moved that the CHS apply for our own URL at a cost of $100 for the first two years. The vote was unanimous in favor of the motion.

New Business

Parking at general meetings: The Field Museum has told us that the west lot is no longer available to us for parking at our general meetings. We have asked the Chicago Park District to open the lot to the east of the museum, but the charge will be $5 per car. Mike Dloogatch moved that we allocate sufficient funds to reimburse attendees for the July meeting parking, as many members will not be prepared for the charge. The motion was seconded by Jack Schoenfelder and the vote was unanimous in favor. [Note: We were allowed to use the west lot after all, so no reimbursement was necessary.]

New meeting site: Because of the unsettled parking situation, it was agreed that we should be seeking a new meeting site. Ron Humbert will initiate that search. *Any* suggestions would be welcome.

Membership list: Further discussion on the parking situation brought the suggestion that a membership list cross-referenced by zip code would be helpful in allowing members to car-pool. The membership committee also favored such a list as a membership benefit to help offset the soon-to-be-discontinued Care in Captivity booklet. Audrey Vanderlinden moved to allocate sufficient funds to have such a list printed, bound and mailed. The motion was seconded by Mike Dloogatch. After discussion the motion passed with John Driscoll opposing and Jenny Picciola abstaining.

Questionnaire: Jenny Picciola will devise a set of questions to ask of past CHS members who have recently failed to renew. John Driscoll will provide a list of 100 such ex-members from the Chicago area, and ten volunteers will make ten calls each. *Bulletin* holders: Jack Schoenfelder will look into the cost of storage containers for CHS *Bulletin*s.

Round Table

Jenny Picciola would like the CHS to get involved with raising the level of husbandry at pet stores keeping and selling herps.

Jack Schoenfelder would like handouts on the CHS suitable for distribution at educational programs.

Greg Brim would like to get kids and teens more involved in the CHS and asked for suggestions.

The meeting adjourned at 10:05 P.M.

Respectfully submitted by the Recording Secretary
Audrey Vanderlinden

Answers to the July Herp-Acrostic

The quotation in last month's Herp-Acrostic was taken from page 96 of *Toads Are Nice People* by R[onald] Altig: "Man is a natural-born pigeon-holer, and the first thing that he does when he gets into a new geographic area or a new taxonomic group is to collect, preserve, identify and classify the organisms. The early Greeks did this and we are still doing it, although some groups are better known than others."

A. Rossman
B. Aglyphous
C. Lateral line
D. The Tortoise and the Hare
E. Imbricate
F. Generation of Vipers
G. The Frog and the Fox
H. Orsini's
I. Agamid
J. Diligent
K. Shorthead garter snake
L. Arrowworm
M. Rough
N. Escutcheon
O. Newts
P. In the Wake
Q. Canthus
R. Edward H. Taylor
S. Patchnose
T. Elephantine
U. Osteology
V. Pits
W. Listen
X. Egg-binding

Advertisements

American Federation of Herpetoculturists: A nonprofit national membership organization of herpetoculturists, veterinarians, academicians and zoo personnel involved in the captive husbandry and propagation of amphibians and reptiles. Membership includes highly acclaimed magazine, *The Vivarium*, dedicated to dissemination of information on herpetocultural accomplishments, herp medicine, breeding and maintenance, field studies and adventures, enclosure design and much more. AFH membership is $26. Send information requests to: AFH-News, P.O. Box 300067, Escondido CA 92030-0067.

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (352) 495-9024, E-mail <GrmtRodent@aol.com>.

For sale: murine-pathogen-free rats and mice available in all sizes, live or frozen: pinkies, fuzzies, crawlers, small, medium and large. Frozen crawler mice in lots of 2000, $.17 each. Also available, full grown hairless mice. FOB shipping point. Master Card accepted. Call (518) 537-2000 between 8:00 A.M. and 5:00 P.M. or write SAS Corporation, 273 Hover Avenue, Germantown NY 12526 for prices and additional information.

For sale: high quality feeder mice. Shipped UPS Next Day Air. All mice are properly processed to insure a quality product. Fourth year of production and supply of frozen feeder mice. Prices: pinks, $25/100; fuzzies, $30/100; weanlings, $35/100. Also available are 4 oz.+ rats, $100/100. Quantity discounts available. The Mouse Factory, P.O. Box 85, Alpine TX 79831, (915) 837-7100, Ray Queen.

For sale: from Bayou Rodents, excellent quality feeder mice and rats. Every size available. Pinks starting at $20/100. Orders are shipped by overnight service Monday thru Thursday. We accept Visa, MasterCard and Discover. For more info, contact Rhonda or Peggy, (800) 722-6102.

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice availabe: small newborn pinks up to jumbo adults. Prices start at $25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: In stock, Flex-watt and Ultra-therm heating products. **Frozen rodents** always available. Mice: pinks–crawlers, 3/$1; weanlings, 40¢; subadult, 50¢; adults, 65¢; large adults, 75¢. Rats: small, 85¢–$1; medium, $1.25–2.00; large, $2.25–2.75; jumbo, 3/$10. Call on quantity discounts [note: discount on orders picked up at CHS meetings]. Live rodents available at higher prices. **Available now**: newsletter/catalog—many unique/hard-to-find herp husbandry items. Send business-size SASE for catalog, or call. Scott J. Michaels, D.V.M, Serpent City, P.O. Box 657, Island Lake IL 60042, (815) 363-0290.

For sale: Herp bags—colors vary, translucent ripcord nylon, super lightweight, extremely durable construction with hot corners sewn in, double seamed. Custom sizes made upon request. Sizes: 46" × 14", $7 each; 24" × 12", $6 each; 24" × 6", $5 each. Shipping fees, $1 for first bag, $.30 each additional bag. Nicole Lechowicz, 290 Warren Road, #69, Carbondale IL 62901, (618) 457-2783.

For sale: two adult leopard tortoises, $400/pair; small red-footed tortoises, $175 each; adult male water monitor with cage, $100; female blood python with cage, $100. Also, two 3' Neodesha cages, $25 each. Leo, (773) 376-0826.

For sale: c.b., fully guaranteed, well started baby frilled dragons, 8"+. New Guinea's $250 each, five or more, $200 each. Crosses $350 each, five or more $300 each. Pure Australians from two localities, $650 each, five or more $600 each. I work exclusively with frilled lizards and emerald tree boas. Buy smart, purchase c.b. animals. (410) 557-9197. [MD]

For sale: **North Australian blue-tongued skinks** (*Tiliqua scincoides intermedia*), babies (approx. 9" and growing quickly), excellent color and pattern, great captives (tame, eat everything), litter of 18 from large female; **central bearded dragons** (*Pogona vitticeps*), babies produced from a very light-colored Toledo Zoo female hatched in 1989. Quantity discounts available on both species, call or fax for pricing. Dave Fogel, The Herp House, 1750 Haines Road, Orwell OH 44076, (216) 685-4615 telephone, (216) 685-4572 fax.

For sale: **c.b. "vittikins" bearded dragons** (*Pogona vitticeps* × *P. rankini*). Smaller than standard bearded dragons. Perfect size pets! Healthy red phase babies born 5/14/97, $30. Also **c.b. leopard gecko babies!**, normals, $20, high yellows, $25; **c.b. Jackson's chameleons**, $30. All the babies are well started and available to good homes only! See Audrey Vanderlinden at CHS or call (773) 561-9003. **NOT a commercial breeder**.

For sale: captive-bred panther chameleons (*Chameleo pardalis*), juveniles (up to 6 months old) and hatchlings available, two color phases (Ambanja blues and reds) available, extremely healthy offspring from gorgeous parents, Ambanja blues $100 & up, red phase, $75. Quantity discounts available. Brian, (414) 672-4211. [WI]

For sale: **Peruvian rainbow and red-tail boas**. These are the real thing! Arco Iris Herpetoculture is pleased to offer the first and only legally exported Peruvian Amazon Boidae in 20 years. Captive bred and born in Peru at the only in-country boa breeding facility in the world! **These are not from wild bred females**. For details and a 1997 price list, call Terry L. Vandeventer, Arco Iris Herpetoculture, (601) 371-7414 telephone, (601) 371-3271 fax, or E-mail <franz@teclink.net>. PLEASE NOTE THESE NEW NUMBERS.

For sale: c.b. **red** (really!) blood pythons, 5 years old, very tame pair, $1195, tractable extra male, $325; one male and one female Dumeril's boas, 2 years old, $495/pair; two male and one female Argentine boas, 6–8', jet black, high contrast, $595/pair, extra male, $225; two male northern blue-tongue skinks, colorful and friendly, $125 each. Geoff Grant, (972) 548-1081 or (972) 684-7090. [Richardson TX]

For sale: c.b. '97 hatchlings. Papuan pythons, $800/pair; green tree pythons, $950/pair; Australian water pythons, $400/pair; bar-neck scrub pythons, $450/pair; Merauke scrub pythons, $400/pair; white-lipped pythons, $400/pair; northwestern carpet pythons, $200/pair; Children's pythons, $200/pair. Contact for free list. J.C. Reptiles, 7154 N. University, #102, Tamarac FL 33321, (954) 722-8758.

For sale: c.b. '97 albino Burmese pythons, $70 each; c.b. '97 Burmese pythons, heterozygous for albino or green (patternless), $45 each. Unrelated clutches. Quantity discounts available. Also, c.b. '97 high yellow leopard geckos, unrelated pairs available, $25 each; c.b. '97 African fattail geckos, hetero for stripe, $40 each, regular, $35 each, striped, $45 each. Sue Black or Ed Schoene, (607) 264-3441, 6–10 P.M. [Springfield Center NY]

For sale: yellow anacondas, flawless captive born babies from high contrast, docile adults, yellow with black spots, $150 each; carpet pythons, captive born babies from huge, vividly colored parents (Brian Barczyk bloodline), some of the nicest carpets you'll see, only a few left, $125 each. Mark Petros/ Strictly Serpents, (847) 854-3259 home, or (847) 854-2992 work.

For sale: **Chondros, Chondros, Chondros!** Ophiological Services is ready to provide you with your own captive-born green tree python from the world's largest and most diversified genetic collection of green tree pythons, second to none. All animals are very well established with data cards, genealogy charts, and scientific reprints. Available for sale are babies, juveniles and 1–2 year olds. Other pythons, boas and colubrids available. Eugene Bessette, (352) 495-3075 phone, (352) 495-2952 fax, (Archer FL). We accept Visa and MasterCard.

For sale: Premium captive-produced reptiles. **Piebald black pines**; Brazilian rainbow boas (Lamar); blonde trans-Pecos rat snakes; Baja rat snakes; gray-banded kingsnakes (Langtry); Okeetee corns; Tennessee corns (rare locality); ghost corns; melanistic garters (unusual form of melanism—male is solid black with three blue stripes and a powder-blue chin); Peruvian matamatas; Mexican redleg tarantulas. Call for free price list or just to shoot the bull. Private breeder Michael Stefani, (630) 372-3936.

Advertisements (cont'd)

For sale: albino and heterozygous *Lampropeltis triangulum nelsoni*—E-mail or call for availability and sex ratios. Clutches of 3, 6, 3 and 7 from two albino males to normal females from other sources. All were good except one clutch of 5, of which 3 were good. One clutch from the albino males to a hetero female (5 eggs, all good) and one clutch from albino males to an albino female yielded 6 beauties. The breeding group is amoung the best available and consisted of some of the ultimate picks of Doug Moody's 1995 progeny, and exceptional females from Applegate, Sipperley and Zuchkowski. One of the albino males is from the Colorado group. Starting a reserve list only now that good eggs are on the ground. Hatching expected starting in mid-September. Interesting trades may be entertained. Also, albino and heterozygous *Lampropeltis ruthveni* from outstanding and outbred adults, $500 for albinos and $250 for heteros. Both white and yellow phases expected. Unrelated offspring, by at least clutch, available on both. Gerry Salmon, (914) 758-0155, or E-mail at <GTSTexMex@aol.com>.

For sale: south Florida kingsnake ("*brooksi*"), female, c.b. '96, perfect health and growing fast, $50; orange Pueblan milksnakes, c.b. '97, beautiful bandings, Seven Generations stock, $50; baby leopard geckos, from exceptional zoo bloodlines, $10 each, care sheets included. Rob Carmichael, (847) 615-4388, leave message on voice mail, or E-mail at <RCarmic416@aol.com>.

For sale: Am now incubating dusty hognose snake eggs (*Heterodon nasicus gloydi*). The parents are handsome, unrelated east Texas stock, $100/pair [permit needed in Illinois]. Also, have a few Delaware corns (*Elaphe g. guttata*) still not spoken for, and a few north Jersey stock northern pines (*Pituophis m. melanoleucus*), and a handful of bullsnakes. South Jersey pines, Virginia/Alabama pines and yellow-headed bulls now sold out (thanks!) Bart Bruno, (203) 773-9257, evenings and weekends.

For sale: one male and two female *Lampropeltis getula* "*brooksi*" yearlings, $200/trio. Gary Gaziano, Castro Valley CA, (800) 603-7500, or E-mail at <mpi2@ix.netcom.com>.

For sale: 1997 hatchlings. Trans-Pecos rat snakes, Mexican hognose [permit needed in Illinois], red milksnakes, $35 each; Baird's rat snakes, prairie kings, California kings, $25 each; Mexican milksnakes, Pueblans, albino speckled kings, $50 each; *ruthveni*, $75 each; *thayeri*, graybands, Durango mountain kings, $100 each; Arizona mountain kings, $125 each. Steve Mitchener, Oklahoma City OK, (405)748-6566 after 6 P. M. Central Time.

For sale: wide variety of captive hatched/produced reptiles from reputable breeder. Animals are from hand-picked adults with diverse bloodlines. **Milksnakes**: Jalisco milks, $90; Honduran milks, $75; tangerine Hondurans, $85–100; Pueblan milks, $55–70; Nelson's milks, $75; Sinaloan milks, $60; Mexican milks, $50. **Kingsnakes**: Mexican black kings, $40; desert kings, $35; Mexican mountain kings (*knoblochi*), $225–400; Arizona mountain kings (*woodini*), $75–90; San Pedro mountain kings (*agalma*), $225; *thayeri*, $75–100; melanistic *thayeri*, $100; "*mex mex*," $75; gray-banded kings, $100. **Other snakes**: axanthic trans-Pecos rat snakes, $1000 each; boas, $75; albino striped Pacific gophers, $60; black pines, $75; western hognose, $30 [permit needed in Illinois]; regular corns, $12.50; amelanistic corns, $22.50; snow corns, $25; regular banded Cal kings, $20; albino banded Cal kings, $25; lavender phase albino Cal kings, $35. All animals are feeding on "unscented" mice unless otherwise indicated and have fed at least two times before shipping. Call for quantity discounts. Troy, (573) 642-9422. [MO]

For sale: '97 c.b. hatchling snakes: gray-banded kings, $95; Sonoran black kings (*nigritus*), $50; California kings, $20. Henry Cohen, 24 St. Johns Place, Buffalo NY 14201, (716) 881-6724.

For sale: beautiful, feeding snakes. Wholesale quantities to dealers, individual purchases welcome. Send SASE for **free** price list. Robert Applegate, P.O. Box 338, Campo CA 91906, (619) 478-5123. Also, free phone consultation on snake husbandry problems as a service to the herp community.

For sale: Send SASE to CRC, P.O. Box 0731, Las Vegas NV 89125-0731 for brochures and list of species available. Limited bookings available for guided tours of herpetological collection sites in Nevada. Call/fax (702) 471-0240. E-mail <fpglwmau@anv.net>.

Pet-sitting service: Complete in-home pet and plant care, specializing in reptiles and other unique pets. Dogs and cats welcome with open arms, midday dog walking. Experienced and dependable service by devoted animal lovers, serving Chicago and suburbs, reasonable prices, fully insured and bonded. Ask about our habitat consultation and custom-made cages. Exotics & More, (312) 728-5457 or page us at (708) 750-3688.

Software: **TRACS**™ record keeping and breeding software for IBM and compatibles. TRACS™ Professional, a full system, $129; TRACS™ *Lite*, for the hobbyist, just $39.95. Add $5 s&h, $10 outside U.S. Send for a working demo for $10 (cost may be applied toward purchase). Or download demo free via Internet at <http://www.herp.com/tracs/>. Send check or money order to Leapin' Lizards, 23852 Pacific Coast Highway, #375, Malibu CA 90265.

Tours: Adventure tours to Madagascar! Join **Bill Love** seeing and photographing fauna and flora, heavily herp-biased, across the world's least known mini-continent. Maximum fun & photo ops assured on every trip. Contact him at: BLUE CHAMELEON VENTURES, P.O. Box 643, Alva FL 33920. TEL: (941) 728-2390, FAX: (941) 728-3276, E-MAIL: <blove@cyberstreet.com>.

Tours: **Road-riding in Costa Rica!** Treat yourself to the trip of a lifetime! Learn about tropical herps, find them, photograph them, see where they live. **Greentracks, Inc.**, offers the best herpetological tours led by internationally acclaimed herpetologists and herpetoculturists. See the Amazon, visit cloud forests, experience the world's greatest rainforest, super sunsets and good company. Call (800) 9-MONKEY.

Wanted: person or business interested in brokering for moderate-sized reptile breeder. See my ad above. Troy, (573) 642-9422. [MO]

Wanted: unwanted crocodiles, caimans, monitor lizards and tortoises. For more details write Bob F. Pierson, % Colorado Gators, 9162 County Road 9N, Mosca CO 81146.

Wanted: big-headed turtles; mata mata turtles; Mexican giant mud turtles (*Staurotypus triporcatus*); exceptionally large common snappers (45 lbs. & up); large alligator snappers (over 90 lbs.); spectacled caiman from Trinidad, Tobago and Surinam; dwarf caiman; smooth-fronted caiman; albino turtles (except red-eared sliders). Walt Loose, (610) 926-6028, 9:00 A.M. – 1:00 P.M. or after 11:30 P.M. Eastern Time.

Wanted: Styrofoam boxes, any size or shape so long as they're not flimsy, preferably with cardboard liners, willing to pay from $2 to $5. Bring to CHS meetings. Scott J. Michaels, D.V.M, Serpent City, (815) 363-0290.

Line ads in this publication are run free for CHS members—$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (773) 588-0728 evening telephone, (312) 782-2868 fax, E-mail <MADadder0@aol.com>.

THIRTEENTH ANNUAL MIDWEST HERPETOLOGICAL SYMPOSIUM — OCTOBER 17–19

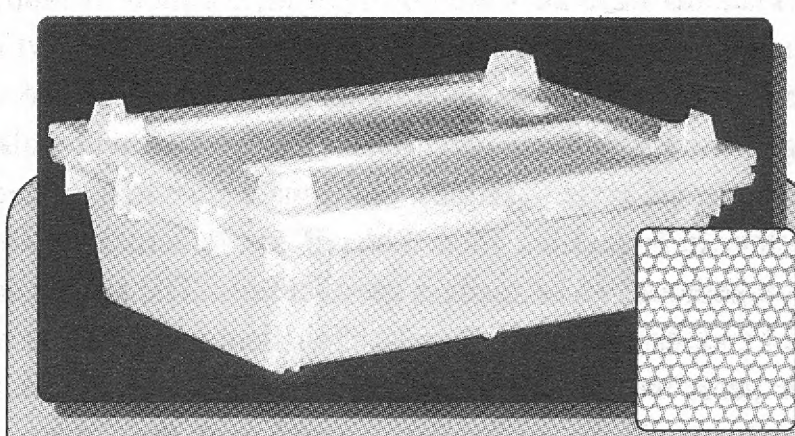
The 13th annual Midwest Herpetological Symposium will be hosted by the Minnesota Herpetological Society from Friday, October 17, through Sunday, October 19, at the Best Western Canterbury Inn in Shakopee, Minnesota (a Twin Cities suburb). The agenda is as follows: Friday from 6 to 10 P.M. is Vendors' Night, with sales of captive-bred animals, dry goods and books. Vendors' Night will include a display of antique reptile-oriented toys and figurines, and a display of rare herpetological books. Also on Friday, from 10 P.M. on, a hospitality suite will be open with ongoing herp-related B-movies and complimentary beer, soft drinks and pizza. Saturday's schedule includes lectures from 8 A.M. to 5 P.M., a social hour by the pool at 6 P.M., a banquet at 7 P.M. with featured speaker Dr. Peter Pritchard, an auction from 9 to 11 P.M., and the hospitality suite from 11 P.M. on. Sunday from 9 A.M. to noon there will be a Veterinary Workshop, led by Dr. Roger Brannian, Dr. John Rossi and Dr. Richard Funk.

Saturday's speakers and their topics will include: Patrick Nabors, "Captive Propagation of Varanid Lizards"; Dr. Aaron Bauer, "Geckos of the Southern Hemisphere"; Sehoya Harris, "Frogging in the Ecuadorian Amazon"; Dr. Jeff Lang, "Male Muggers in Madras, Crocodiles That Is"; Jeff Ronne, "The Not So Common Boa Constrictor"; John Moriarty, "Minnesota's Amphibians and Reptiles"; Dr. John Rossi, "Rare and Unusual North American Snakes"; Dr. Dan Keyler, "Venomous Snakebite: Causes, Effects and Treatment" and Dr. Richard Funk, "Managing Reproductive Problems in Captive Reptiles."

Full registration for the conference is $48 until September 15, $55 thereafter. The optional banquet is an additional $22 per person. Vendor fees are $10 for Friday night only or $20 for the entire weekend. In addition vendors are expected to make a dry goods donation to the auction. Registration forms are included with this *Bulletin* as a flyer. If you have any questions about registration, contact Marilyn Blasus, 3224 Idaho Avenue South, St. Louis Park MN 55426, (612) 925-4237. For vendor questions contact Eric Thiss, (507) 467-8733.

Health Food for your herps!

Highest quality rodents are available in all sizes from pink mice to jumbo rats. Fresh frozen crawler mice are only 17¢ each in lots of 2,000. All frozen animals are shipped in insulated boxes.



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UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, August 27, at the Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, in Chicago. **Roger Repp**, President of the Tucson Herpetological Society, will present "An Overview of the Herpetofauna of Southern Arizona." This program will discuss the diversity of both herpetofauna and habitat in the southern third of Arizona. The very best slides from 14 of the finest "amateur herptographers," covering a 10-year time span, will be included. These will highlight such topics as habitat association, little-understood wild herp behavior, and winter activities of five species of reptiles. Roger promises that there will be something for everybody at this talk.

Ponds will be the theme for our September 24 meeting. **Charles M. Roth** of the Chesterton [Indiana] Feed and Garden Center will speak on "Installation and Care of Ponds, with Emphasis on Indoor Ponds." **Ron Humbert** or **Jim Nesci** or both will follow up with a short program on "Reptiles and Amphibians in Ponds."

We are required to use the entrance on the west side of the museum. **Last month we were able to use the parking lot to the west of the museum, despite having been told beforehand that it would no longer be available to us. Furthermore, the Soldier Field lot was open and unattended even though we had been told that it would be closed. It seems we have little choice but to play it by ear each month. For the latest on the parking situation call our CHS message line, (773) 281-1800, before you come.** Public transportation is an option: the Roosevelt Road (12th Street) bus now goes directly to the museum, thus providing a connection with the el and subway. This bus service runs until 11 P.M.

Turtle Club

The Chicago Turtle Club will meet Sunday, August 24, 1:00–3:30 P.M., at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago.

FIFTEENTH ANNUAL HERPETOLOGICAL WEEKEND — SEPTEMBER 20–21

The Chicago Academy of Sciences currently occupies temporary quarters at North Pier, 465 E. Illinois Street (just across Lake Shore Drive from Navy Pier). This will be the site for the 15th annual HerPETological Weekend put on by the CHS under the auspices of the Academy. The show will take place over the weekend of September 20–21, from 10 A.M. to 4:30 P.M. on Saturday and from 11 A.M. to 4:30 P.M. on Sunday. We urge all CHS members to bring some of their favorite animals and suitable containers in which to display them. For more details attend the August 27 CHS meeting or phone Ron Humbert at (630) 620-7377.

MOVING??

Please let us know in plenty of time of any change in your mailing address. The *Bulletin of the Chicago Herpetological Society* is sent to our U.S. members by bulk-rate third class mail. This means that the U.S. Post Office will not forward your *Bulletin* with the rest of your mail. This is so even if you make a special request that your magazines be forwarded (such a request only applies to second class mail).

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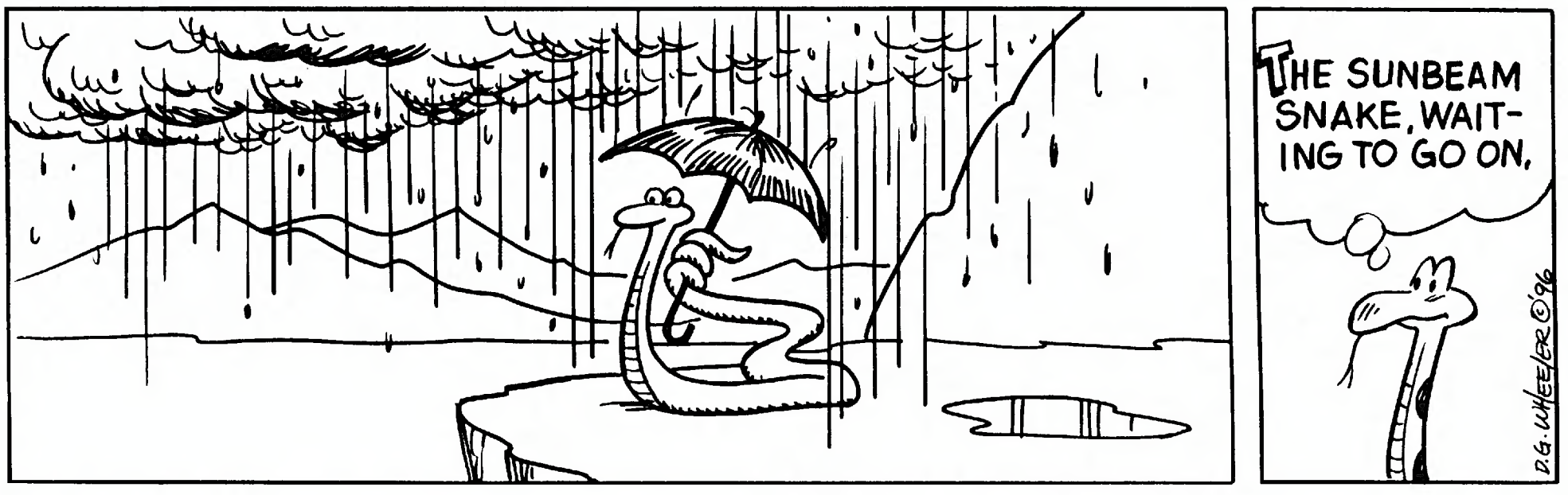

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